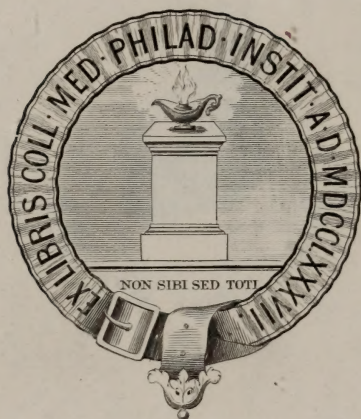
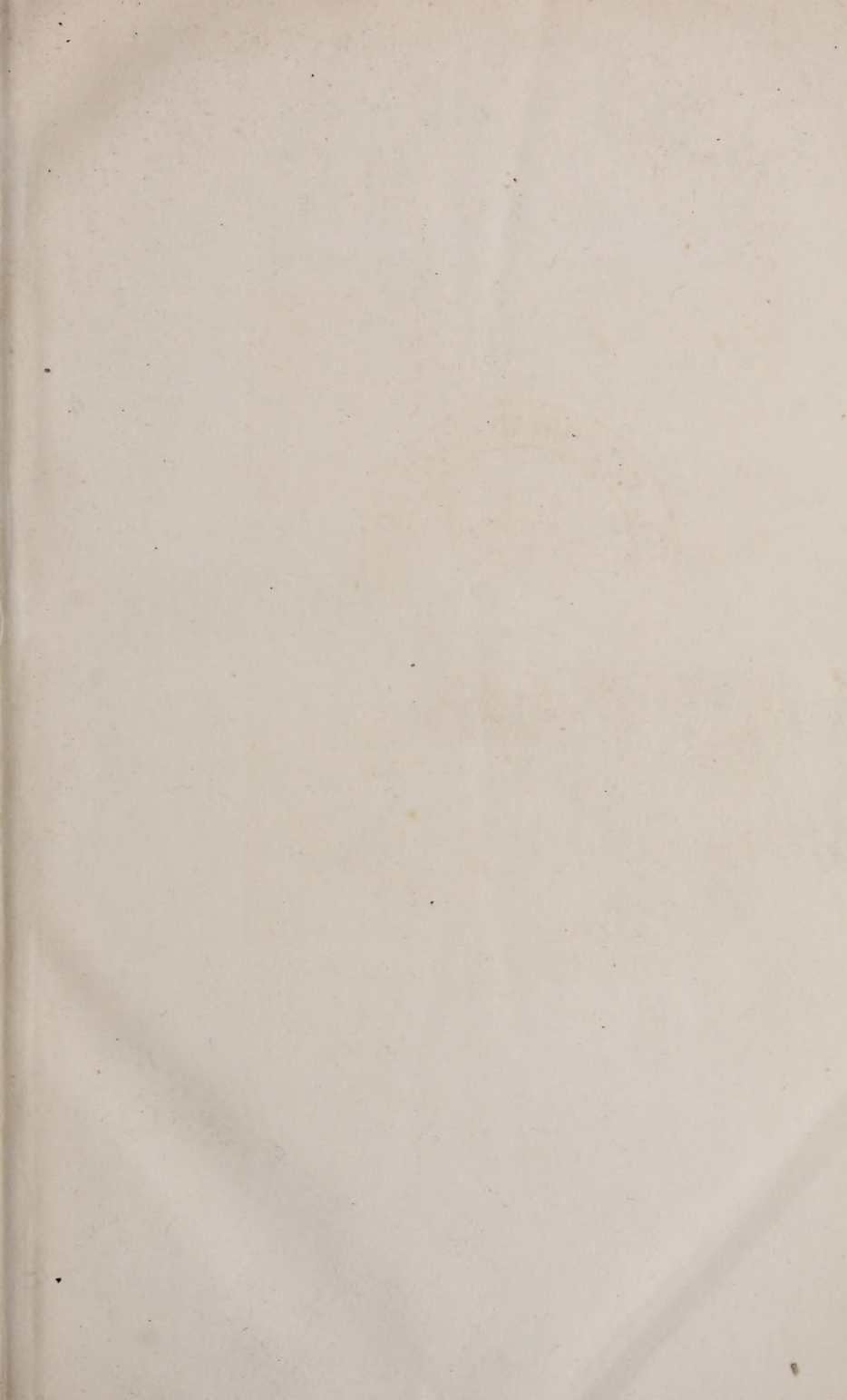
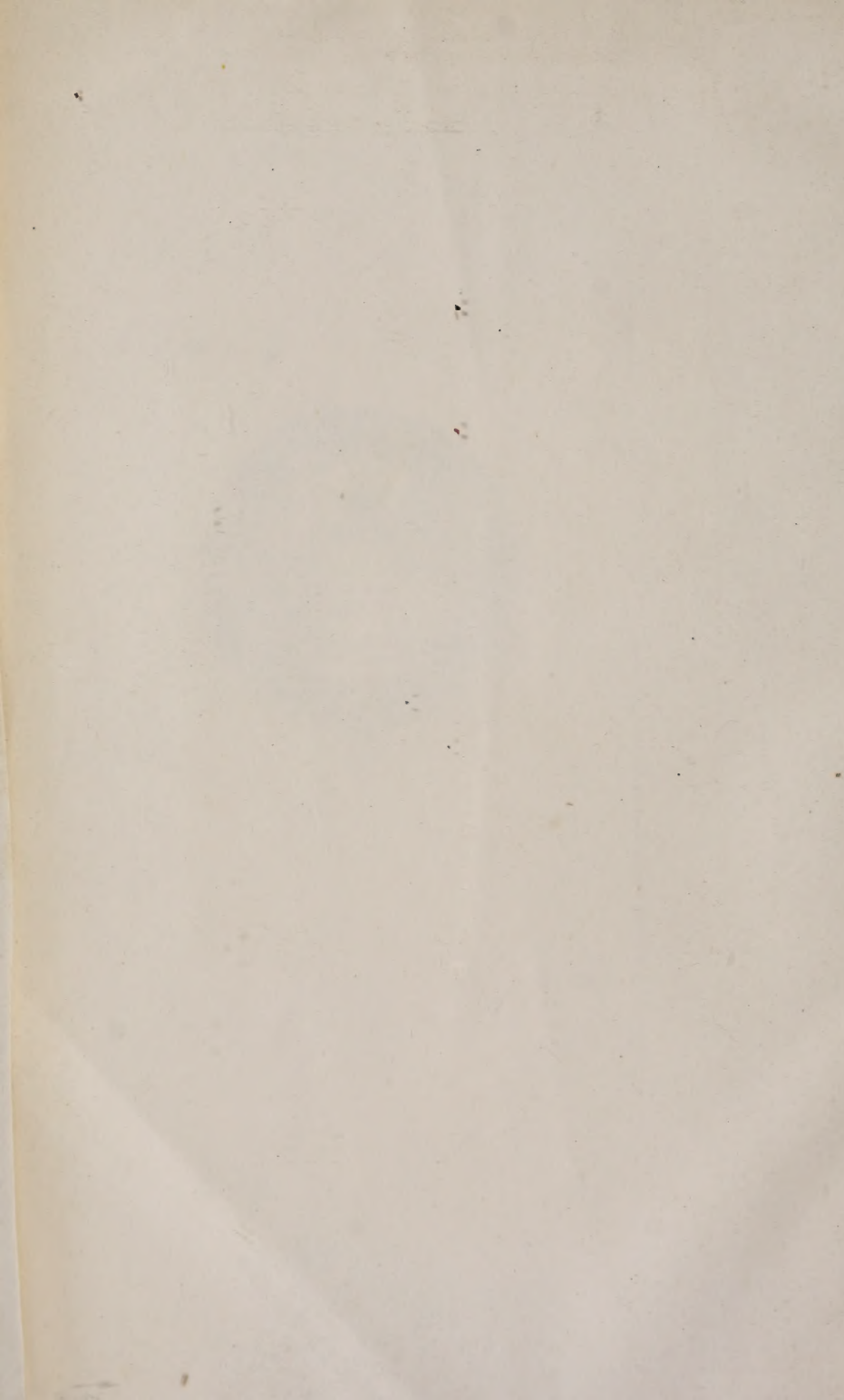


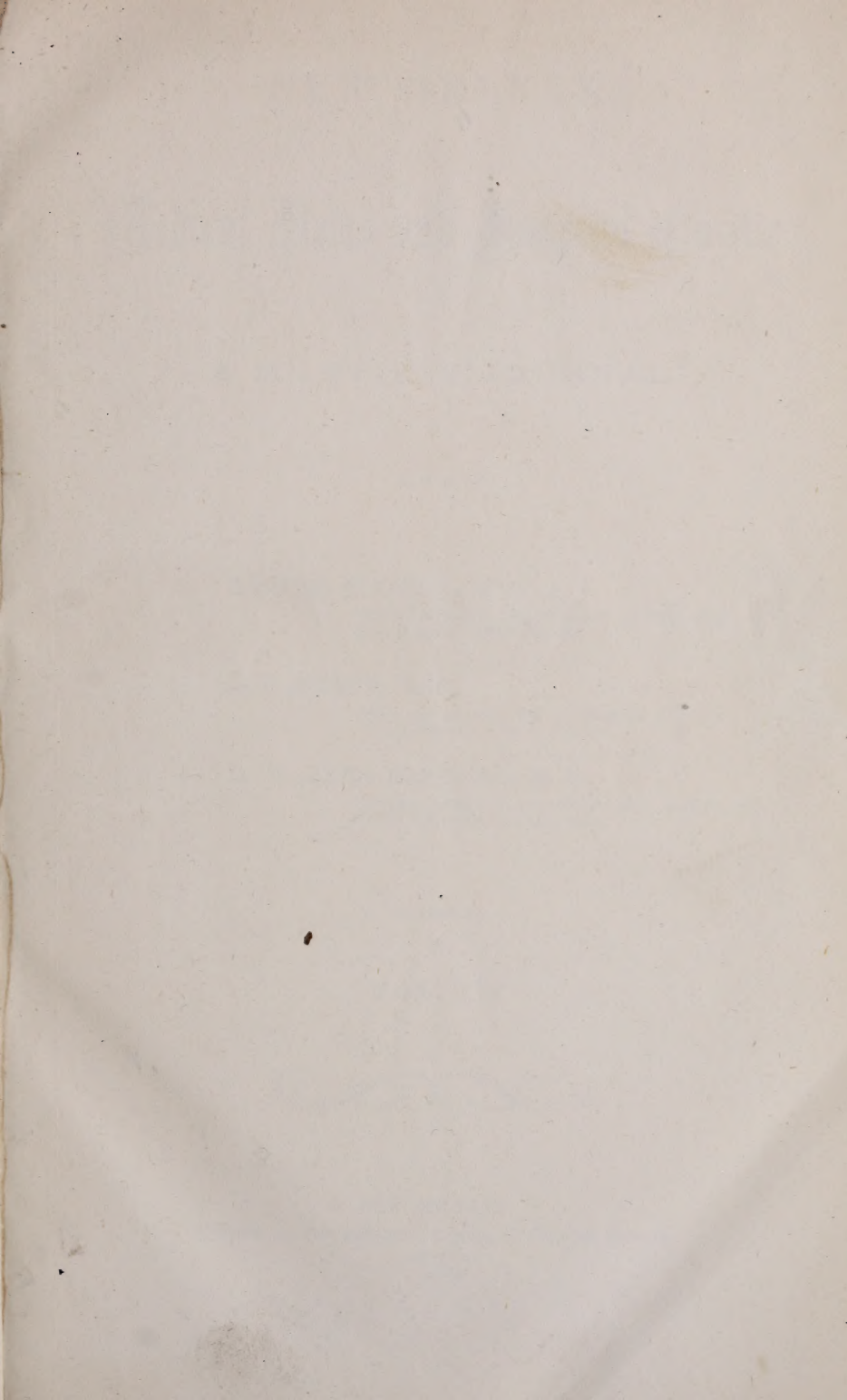
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NO. I.

LECTURES ON EXPERIMENTAL PHYSIOLOGY,

DELIVERED AT THE COLLEGE DE FRANCE, PARIS, DURING THE YEAR 1855,

By Professor CLAUDE BERNARD.

From notes taken at the Lectures by ANTHONY PENISTON, M.D., of New Orleans.

GENTLEMEN,—The mode of instruction adopted in the College de France differs materially from that of a Chair of Physiology in a Medical Faculty. In the latter, the teacher must promulgate his opinions dogmatically, considering the science as settled and complete. Here, on the contrary, we must consider every question as being open to investigation, and the science of physiology itself as if it were imperfect and unsettled. They must search among the records of the past, and must build up their fabric from the labors of others: we must look on the future destinies of our science. Let ours be the hope of extending its limits. Two methods of contributing to the progress of Physiology now present themselves.

1st, To make new researches.

2d, To criticise old doctrines by submitting them to the test of experiments.

The celebrated Le Maistre said, that more discoveries were due to chance than to all the researches of the learned; he even said, that in order to make new discoveries it was necessary to be ignorant.

On the other hand, Bacon and his school have contended, that there is a method with certain rules by which the limits of science can be extended and new discoveries made.

That those principles are useful to guide us in our researches there can be no doubt; notwithstanding, experience has not proved that

those who knew them best were the most fortunate in their application.

During the course of these lectures we shall investigate the mode of action of divers substances, which exercise a notable influence on the phenomena of life.

Two conditions are requisite to maintain life. 1st, The organism, that is to say, the integrity of all the organs, of the tissues, and of their functions. 2d, The medium in which we live, comprising oxygen, heat and the food requisite for our organism. But at the same time that we must study those chemical changes necessary to maintain life, so also must we investigate the nature of many substances, which, though not necessary to life, yet may be said to exercise a marked influence on our organization, suspending or destroying its functions.

Thus the numerous class of poisons and medicaments are perturbing agents, while oxygen, on the contrary, may be styled a conservative agent. But the study of medicines and poisons constitute the domain of therapeutics and toxicology.

Here we shall select a few of the most active substances, such as strychnine, nicotine, morphine, &c., in order to study their effects under a purely physiological point of view. We shall make use of them, as of a re-agent, which, by a specific mode of action, localised in some one tissue, will enable us to acquire precise notions on the nature of those tissues thus acted upon.

Physiology has no other aim or object than to analyse the phenomena of life.

In order to distinguish the part which appertains to each organ amid the complicated phenomena of life, it has occurred to physiologists to destroy one organ, or one tissue, and then to observe how the organism is affected by its absence.

Thus, by cutting a nerve, we destroy the functions of that nerve, and from it results either loss of motion or of sensibility, according as it is a nerve of motion or sensation.

But this process is exceedingly rude, and then when it becomes necessary to penetrate very deeply into adjoining structures in order to destroy some special organ, the morbid process may become so complicated as to involve the result in considerable obscurity.

When we examine the poisonous effects of certain substances, we ascertain that they act by destroying some one system of the organism, or some one tissue of the body. This point once settled thus becomes an excellent means of ascertaining the properties and functions of the different tissues. Thus, a substance of which the composition is not

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well known, but which possesses most active properties—the celebrated Woorara poison—exercises a particular action on the nervous system, it produces death without any apparent suffering, the animals manifesting no pain.

If we take two frogs, and sacrifice one by cutting off its head, we shall observe that, at a low temperature, the nervous system retains its properties during several days, and may react on the muscles under the influence of any exciting cause, such as galvanism or electricity.

On the other hand, if we poison the other frog with the Woorara poison, the excitability of the nervous system ceases at once: this poison annihilates the nervous system, and death is caused by the total abstraction of the nervous influence.

Now, it is utterly impossible to remove by dissection the whole of the nervous system; at the same time we should lacerate and destroy all the surrounding tissues. But here we have a substance following the nerve in its minute ramifications to its ultimate fibrilla, at the same time that it respects completely the surrounding organs.

But let us return to our experiment of the two frogs. On the one poisoned with Woorara, galvanism produces no effect on the nervous system, yet when applied locally to the muscles it produces contraction. On the contrary, if on the decapitated animal we isolate a nerve, and touch that nerve with a galvanic current, we observe convulsive movements in the whole limb. This experiment proves that Woorara destroys at the same time the motor and sensitive system of nerves, but that it does not affect muscular irritability. Thus the question mooted by Haller, more than a century ago, that muscular irritability is independent of the nervous influence, is now finally settled. Marshall Hall still maintains that nervous excitability and muscular irritability depend one on the other.

But let us go one step further. The experiment with the Woorara poison proves, moreover, that the irritability of the muscular system is increased by the effect of the poison, and persists nearly twice as long as it does on the decapitated animal. But it may be objected that no two frogs can be in the same identical condition, and that if the experiment had been reversed, the result would also have been different. The following experiment must remove all objection of that nature. Let us take a frog, and while it is in perfect health we put a ligature around the femoral artery on one side, and then poison the animal with Woorara. Now it follows that the blood cannot carry the poison to that leg, and what is the result? That muscular irritability disappeared

at the end of five days in the leg where the poison does not circulate, while it persisted ten days in the other leg. We may then safely conclude that the Woorara poison destroys nervous excitability at the same time that it increases muscular irritability.

There is yet another consequence to be deduced from our experiment. Let us examine the heart of the frog poisoned with Woorara; you will observe that it still beats perfectly. This proves that the heart is independent of all nervous action; and is in that respect quite an exception to the general rule. This is the reason that though separated from the brain and spinal marrow the heart still contracts.

You perceive from this experiment how we can make use of poisons to analyse the phenomena of life, they become in the hands of the experimental Physiologist a re-agent, exercising a determinate action on certain parts of the organism, just as the chemist uses his tests in the laboratory to analyse and separate different substances. If it be asked what science we would promote, what good can result from our researches; we should answer, that this art is especially destined to throw light on medical science. It has been said that medicine and physiology are independent sciences, that the latter is more curious and entertaining than useful to the physician; for, say they, to what physiological state does fever correspond? To that we should answer that if physiology was more cultivated we should then know what particular morbid state or derangement of which set of organs the fever was owing to.

Thus it is we know at present that diabetes has its physiological correlative. A few years ago if it had been asked is diabetes the result of some functional disorder producing sugar as a substance entirely foreign to the system, or is it produced by some mal-assimilation of the digestive organs, what would have been the answer? At this day we know that the presence of sugar in the urine is owing to the exaggeration of a strictly physiological function, for in the normal state sugar is secreted by the liver. We know moreover that we can render animals diabetic by introducing a sharp pointed instrument into a certain portion of the medulla oblongata.

Fever also can be produced by some functional disorder. Thus if we cut certain *filaments* of the great sympathetic nerve, fever supervenes in that part. (Here Mr. Bernard shows a rabbit on which he has made a section on one side of the sympathetic nerve distributed to the ear, and the result is plainly visible in the increased heat and redness of that ear compared with the other.) It has also been ascertained that if a section be made of a certain part of the great sympathetic distribu-

ted to the thorax or abdomen, we can produce pleurisy in the first, and peritonitis in the second. Undoubtedly there are many morbid states which we cannot explain by physiological laws as yet known; but it cannot be denied that the progress of physiology is destined to throw great light on those pathological conditions which are now the most obscure.

LECTURE II.

In order to show the relative bearings of physiology and pathology, it may not be uninteresting to give a short sketch of the different theories and opinions on the nature of diabetes. This disease has been known from the most remote antiquity; but it was characterized in a very vague manner, and its symptoms very imperfectly described. Thus a person was said to be diabetic when he voided unusual quantities of urine, accompanied with other general symptoms, such as emaciation and loss of strength. On account of the latter symptoms it had been likened to phthisis, one being of the lungs, the other of the kidneys, but the presence of sugar in the urine was long unknown. When this peculiarity was ascertained, a distinction was made between simple diabetes, or polyuria, and diabetes mellitus. In the present state of science this distinction is not admitted, diabetes being always characterized by the presence of sugar in the urine. The celebrated Willis was the first who said that the urine of diabetics was sweet and had the taste of honey. Rollo, who came afterwards, thought that the presence of sugar was due to a vitiation of the gastric juice, which changed the food into sugar instead of transforming it into chyle. Nicolas and Gueudeville, who wrote on the subject towards the year 1803, placed the seat of the disease in the intestines. They thought that chyle, being a nitrogenous fluid, produced by digestion, the diabetic sugar was nothing more than chyle deprived of nitrogen. In 1813, Mr. Chevreuil showed that diabetic sugar was similar to that produced from starch, which is transformed into sugar by the process of digestion.

Mr. Bouchardat thinks that sugar is formed in the stomach, and that it is absorbed directly. Mr. Mialhe has propounded another theory. Having ascertained that when diabetic sugar, or sugar produced from starch, is heated in presence of an alkali it is completely destroyed, Mr. Mialhe thought that sugar was a normal product of digestion, and that if the blood was not sufficiently alkaline to destroy the sugar, the person became diabetic; therefore, said he, the cause of the disease is in the blood, from which he concluded that the treatment should be by means of alkaline remedies.

But setting aside all these conflicting theories, formed, most of them, *a priori*, when we undertake to account for the presence of sugar in the urine, we find that it can only have its origin in two ways. Either it is introduced as food, or is fabricated abnormally in the system. We shall endeavor to show that in the normal state we secrete sugar internally, but that physiologically this sugar disappears before it reaches the kidneys. Diabetes, then, is nothing more than a deviation of a physiological state. Before considering the origin and production of sugar in the system, we must premise that chemists recognize three different kinds of sugar, viz. :

Cane sugar.

Grape sugar.

Starch sugar, or glucose.

Cane sugar differs from the others in this, that the alkalies have no action on it, but the acids transform it into grape sugar, or glucose.

The alkalis have a particular action on grape sugar and glucose—thus if we take a solution of potassa, and add to it some diabetic sugar or glucose, and then expose it to heat, the liquid takes a brownish hue, the sugar disappears and is transformed into various acids.* On the contrary, ordinary cane sugar being heated with potassa does not alter its color. Pure cane sugar boiled with an acid is transformed into grape sugar. The following test is considered one of the best to detect the presence of sugar in urine. Take a solution of tartrate of potassa and copper, with an excess of potassa, put a few drops into a test tube containing diabetic sugar, and expose the whole to the flame of a spirit lamp; the liquid, which is previously of a beautiful blue, speedily changes color, giving rise to an orange yellow precipitate.

Cane sugar exposed to the same test gives no result, as it exercises no chemical action on the tartrate of copper. Being exceedingly delicate this test can be used to ascertain the proportion of grape sugar contained in a given solution. When we use the test for grape sugar in the way above mentioned, the reaction which takes place is called a reduction of the liquid. The chemical change which takes place is as follows: When either grape sugar or glucose is heated they are converted into various acids. Now this liquid tartrate of potassa and copper contains a salt of duetoxide of copper, and when the sugar is decomposed it takes away one equivalent of oxygen from the copper, which thus becomes a salt of protoxide of copper, and that being insoluble is precipitated. This liquid, which is known under the name of Barriswill's test, only gives this result when in presence of grape sugar or glucose.

Potassa has also been used as a test, but it may lead us into error, as a solution of tannin heated with potassa gives the same brown color as a solution of glucose.

When the liquids which we wish to test for sugar are colored, as blood, for instance, we must filter them through bone black; this takes away the coloring matter and the other albuminous and organic substances, but in no way affects the sugar; we thus obtain a pure and transparent liquid, which can be readily tested by the method above mentioned. Another method which allows us to ascertain the presence of sugar, is to produce fermentation by means of yeast, the sugar being decomposed into carbonic acid and alcohol, the latter burning with a peculiar bluish flame.

Polarized light has also been used to distinguish certain characters appertaining to grape and cane sugar.

Having thus explained the different kinds of sugar, and the tests by which it can be recognized, we are now prepared to investigate the origin and production of sugar in the system.

We have ascertained beyond a doubt, and our experiments will prove, that sugar is formed from the blood, but that its production is totally independent of the species of food taken into the stomach. No sugar is found in the blood before entering the liver, but its presence in the blood which comes out of the liver is easily ascertained. The liver itself contains sugar in considerable quantity, and is the only organ possessing that property. It was long thought that the presence of sugar in the urine of a diabetic person was owing to imperfect digestion of some particular kind of food; hence physicians directed their exclusive attention to the diet of those patients, until it was almost universally admitted that all those substances which contained starch in any form increased the disease. Now, however, we must place the disease in some functional disorder of the liver, the nature of which we shall endeavor to elucidate in the progress of these lectures.

The existence of sugar in the liver being settled beyond all doubt, it was and is still objected by some physiologists that this sugar did not take its origin in the liver, but having been introduced through the medium of absorption, was only localized and concentrated in the liver. That a dog, for instance, having eaten bread or some other substance containing starch, which is capable of being transformed into glucose, would have this sugar carried to the liver by the general circulation, and there it would be liable to remain a considerable time. A great deal has been said of this localization of different substances in

the liver; thus it has been reported that mercury, copper, arsenic, &c., had been found in the liver of persons who had taken those substances during life. Therefore, some physiologists, reasoning by analogy, said it would not be strange if the sugar had reached the liver in the same way. But whatever may be the fact as to those other substances, the best proof that sugar is not introduced in that way is, that we find it in the liver of the fœtus, before any food has been taken into the stomach. Here are several livers taken from calves at the fourth or fifth month of gestation, you see that our test plainly indicates the presence of sugar; moreover, when submitted to the process of fermentation, alcohol will be produced. Certainly it cannot be said that this sugar was introduced by means of the food, for the stomach had never received any.

It might be said that the mother takes in food, and that this sugar may be introduced into fœtal circulation by vascular communication through the placenta. But it is well known that no such communication exists between the mother and the fœtus; moreover, the blood globules of the fœtus are larger than those of the mother, and could not circulate in the capillary vessels of the latter.

Another fact comes in to settle the question. The function of the liver which produces sugar does not begin until the fourth or fifth month of uterine life; before that period no sugar is found in the liver, though the same relation exists between the mother and the fœtus, as far as nutrition is concerned, before that period as well as afterwards.

There is yet another proof that sugar is not simply localized in the liver; for those substances, such as arsenic, mercury, &c., which have been said to be found in the liver, when once they penetrate into the liver, remain there indefinitely. Sugar, on the contrary, disappears from the liver as soon as the function of the liver ceases. Thus when animals die of disease, their liver contains no sugar. This is the reason why no sugar is found in the liver of the subjects commonly brought to our amphitheatres.

Although there be no relation of cause and effect between the nature of the food and the formation of sugar in the liver, yet innervation exercises a direct influence on this function. When a section is made of the two pneumogastric nerves, the formation of sugar in the liver ceases at once. Here is a rabbit on which were cut those two nerves yesterday evening: you see he has survived the operation; we shall now sacrifice him, in order to prove that all traces of sugar have disappeared from the liver.

We must therefore admit that sugar is formed in the liver, through

a special function appertaining to that organ, and subject to certain physiological variations according to the state of the system.

2d. That this function commences at a certain period of uterine life.

3d. That during disease the formation of sugar either diminishes or ceases completely. This is an excellent method of ascertaining whether an animal died in a state of health or in consequence of disease, for in the former case sugar would be found in the liver, and in the latter not.

Here is the result of an analysis giving the proportion of sugar found in the livers of different animals.

Human fœtus at 6½ months	-	-	-	0.77 per cent.
Fœtus calf, from 7 to 8 months	-	-	-	0.80 "
Fœtus of a cat, at term	-	-	-	1.27 "

On the other hand, the following analysis shows that the different varieties of food exercise very little influence on the production of sugar in the liver.

A dog fed exclusively on meat	-	-	1.90 grammes per cent.
Another fed the same	-	-	1.40 " "
A dog fed on meat and bread	-	-	1.70 " "
Another fed the same	-	-	1.30 " "
A dog fed exclusively on starch	-	-	1.88 " "
Another fed in the same way	-	-	1.50 " "

The liver, you know, is a large glandular structure, situated in the abdomen, and placed as a sort of barrier between the digestive system on the one hand, and the general circulation on the other. The liver receives by the vena porta the blood which comes from the digestive organs; this blood traverses the liver, undergoing divers modifications, and then comes out by the hepatic veins, which empty themselves into the inferior vena cava. Besides these two sets of vessels we have the lymphatics and the hepatic artery. The latter exercises no influence on the function of the liver, but only serves for the nutrition of the substance of the liver, and does not afford materials for the different products of that organ. Sugar is formed from materials furnished by the blood of the vena porta; this production of sugar is a secretion analogous to others in the animal economy.

Thus we see that several functions appertain to the liver, for we know already that it produces bile. The liver is an organ which exists in all animals. For a long time it was thought that the liver only served for the production of bile; and as it was said by physiologists that bile was useless in the animal economy, the argument was that the liver itself was unnecessary.

But in the first place it is now well ascertained that bile has most important functions in the process of digestion, and, moreover, the liver fulfils other purposes connected with the respiratory functions through the production of sugar.

It is said that an organ which secretes must be provided with an excretory duct. Now that is true so far as regards the secretion of bile, but there is no special duct for the elimination of sugar. It mixes with the blood coming from the liver, and is thence carried to the lung.¹

How does this secretion take place? All secreting organs are formed of cells, and this is the case with the liver. These cells are disposed in masses, which, by compression, assume a spheroidal or polyhedral form, constituting the lobules of the liver. At the centre of each lobule the commencing radicles of the hepatic vein take their origin; the branches of the vena porta, on the contrary, ramify on the surface of the lobules. The biliary ducts commence within the lobules by numerous ramifications, which form a closed network or plexus, occupying principally the outer portion of each lobule. The blood which enters the liver undergoes very important modifications in traversing the cells situated between the ultimate ramifications of the vena porta and the origin of the hepatic veins. There it is that the blood is divided into those component elements which produce sugar on the one hand and bile on the other. But these two secretions are entirely distinct, for there are two sets of cells, one forming the bile and the other the sugar; the bile being composed from the nitrogenous elements of the blood; the sugar, on the contrary, from the albuminous or non-nitrogenous elements.

The production of those two substances is not concomitant—that is to say, when the formation of bile is most active, that of sugar is at its lowest point, and *vice versa*.

The exact relation of the biliary ducts to the cells of the liver has never been well ascertained. Though coming from an organ containing sugar, the bile itself contains none, which proves that the two excretions are independent.

In the mollusca, snails, and others of that class, it can be seen that the bile, or rather the liquid coming from the liver, does not always present the same character. When digestion is going on the duct which comes from the liver furnishes a very sweet liquid; then this liquid ceases after a certain time—it changes color from white to green, becomes exceedingly bitter, and no longer retains any traces of sugar. Thus the production of sugar takes place during digestion; that of bile, on the contrary, takes place after digestion. This is contrary to the old

admitted opinion that bile was produced during digestion. But that this is not the case can be easily demonstrated on a dog having a biliary fistula. Here is the operation which must be made to establish a biliary fistula on that animal. Make an incision in the right side, enabling you to pass a ligature around the ductus communis choledochus, which is thus prevented from emptying itself into the abdomen. You must then draw out the gall bladder, and attach it to the skin, where it becomes adherent; lastly, you make a small puncture, and then the gall bladder itself becomes an excretory duct, by which the bile runs out. By this means you can ascertain that, during digestion, bile runs in very small quantities; but that about seven hours after a meal, much larger quantities of bile are excreted. During digestion bile is poured into the intestinal tube, but it comes from the gall bladder, into which it has been accumulated beforehand, as a sort of reservoir. Sugar, on the contrary, is produced about three hours after an animal has eaten.

All animals are not alike provided with a gall bladder: the horse, for instance, has none, but the ductus communis choledochus is very large, and provided with a sphincter, which thus retains the bile.

In certain insects the liver does not exist as a distinct organ, but we find in its stead two series of glands, of which those situated above secrete bile, and those below secrete sugar, while both pour their secretions into the intestinal tube. We have thus far arrived at the following conclusions, which may be stated as general propositions.

1st. There are two functions in the liver, but they do not seem to be the result of the same anatomical element—one producing sugar, the other bile.

2d. These two secretions are neither permanent nor constant, but intermittent, there being oscillations in the secretion of sugar as well as bile.

3d. Sugar is not an excretion like urine, for in the physiological state it should not appear outside the system; it is only pathologically, as in diabetes, that sugar is excreted with the urine. The following is the origin and progress of sugar in the system. After its production in the hepatic cells sugar comes out of the liver by the hepatic veins. It then reaches the inferior vena cava, where it mixes with the blood coming from the lower extremities; from the inferior vena cava the sugar passes into the right side of the heart, whence it is driven into the lung. There the sugar is brought into contact with the atmospheric air, and is destroyed by undergoing a peculiar species of combustion, so that when the blood comes out of the lung it no longer

contains any sugar. The quantity of sugar is at its summum in the interval between two meals, when digestion may be said to be most active; so that, though the secretion be constant, there are periods when it is more considerable than at others.

The proportion of sugar in the blood of the hepatic vein is about 1 per cent., but in the right ventricle, as it has been still further diluted, the proportion is about 1-3d per cent. At the beginning of digestion, the blood of the vena porta is supplied on the one part from the capillary terminations of the mesenteric arteries, and on the other from divers soluble matters and liquids absorbed in the intestinal tube. On this account the liver receives at that moment a much larger quantity of blood than during abstinence, the secretion of sugar is rendered more active, and then the proportion of sugar in the hepatic vein may be as much as 1½ or 2 per cent. The quantity of sugar being thus considerably increased, it may happen that all will not be destroyed in the lung, and then arterial blood will contain a small proportion. This is generally found to be the case where an animal is sacrificed during digestion, for whatever be the food some sugar will be found in the whole circulation, but always in much greater proportion in the blood of the hepatic vein and vena cava. This oscillation in the production of sugar is very important, as it is found even in the pathological state, for it has been observed that some persons are diabetic at certain times and not at others.

The appearance of sugar in the urine may depend upon two causes; either its destruction in the lung is not sufficiently rapid, or its production is abnormally increased.

It being thus settled that the sugar takes its origin in the liver, while on the other hand it is destroyed in the lungs, we perceive at once that a most intimate physiological relationship must exist between those two organs, and pathological anatomy has verified this law, for diabetic subjects have generally important lesions in the lung as well as in the liver.

In the physiological state bile never contains any sugar. If you sacrifice an animal and examine the bile instantly, it will not contain any traces of sugar. But on the other hand, if you were to examine bile taken from an animal which has been dead for some hours you may find evident traces of sugar. The reason is this—when life ceases the liver becomes subject to purely mechanical laws, and as sugar has a strong endosmotic power, that which is contained in the hepatic cells may easily pass into the biliary ducts, whereas during life this is never the case.

In studying the functions of the liver, the following propositions present themselves for investigation :

1st. What alterations may supervene pathologically in the cells of the liver?

2d. What changes take place in the composition of the blood while passing through the liver?

3d. What influence is exercised on the functions of the liver by the purely mechanical phenomena of the circulation?

4th. What is the influence of the nervous system on the functions of the liver?

As to the nature of the alterations which the hepatic cells may undergo, we know but little. The fatty liver is observable among certain animals fed in an artificial manner, producing a metamorphosis in the cells of the liver which are filled with large quantities of fat. The liver, however, still continues to secrete sugar, two analyses presenting, the one case 1, the other $1\frac{1}{2}$ per cent. of sugar, which is even beyond the ordinary proportion of sugar in the liver. Besides this, the liver is subject to a great variety of degenerations and morbid productions; but these alterations generally leave a portion of the organ in a healthy state, and this continues to supply the wants of the economy.

On the influence exercised by the composition of the blood on the production of sugar in the liver.

As the composition of the blood in the vena porta varies according to the nature of the food, it is important to know what influence those changes may exercise on the production of sugar. This question has been raised especially in the treatment of diabetes, where it may be useful to know what kind of food produces the least sugar. Formerly physiologists thought that sugar in diabetes was produced exclusively by vegetable food, and consequently the deduction that those patients would be most benefited by nitrogenous articles of diet and animal food, while, on the other hand, bread was supposed to furnish a large proportion of sugar. But as we have now ascertained that the production of sugar exists in the liver, what becomes of the sugar introduced into the system from outside?

Before answering this question, we must know what would be the consequence of prolonged abstinence on the production of sugar.

When an animal is entirely deprived of food, we have ascertained that sugar gradually disappears from the liver. Prior to this, however, sugar can only be produced from the materials furnished by the blood contained in the vena porta, for, in the absence of all food, the intestines

can furnish no materials to the vena porta through the different absorbent vessels; therefore the blood circulating in the vena porta is furnished exclusively from the blood of the mesenteric arteries passing into the portal circulation through the intermedium of the capillaries. Thus we prove that the production of sugar is independent of the nature of food. In an animal exposed to complete abstinence the liver continues to secrete sugar until the animal loses 4-10ths of its weight: at that period there is a complete paralysis of the digestive organs, and if it were attempted to nourish the animal its life could not be saved. Dogs thus exposed to starvation die from the twentieth to the twenty-second day; guinea pigs from the twelfth to the fifteenth day.

Touching this question of prolonged abstinence, it may not be uninteresting for us to learn what takes place in those hibernating animals which are known to pass whole months without eating. Valentin, who has experimented on the marmot, an animal inhabiting the higher regions of the Alps and Pyrennes, has ascertained that those hibernating animals are not in the condition of an ordinary animal deprived of food. Having kept one of these marmots, which slept 39 days without eating, he then sacrificed it, and found that the liver contained 2.87 per cent. of sugar. He found in the intestinal tube of those animals a peculiar whitish substance, which was continually secreted by the stomach, in a manner peculiar to those animals. There was then re-absorption of this matter in the alimentary tube, and nutrition was thus kept up at the expense of the animal itself, for it continually diminished in weight. In our next lecture we shall consider the influence of food on the production of sugar.

(To be continued.)

LUXATION OF INFERIOR MAXILLARY BONE.

Communicated by W. E. BRICKELL, M.D.

Messrs. EDITORS:—I noticed in the November, 1855, number of your journal the history of a case of complete dislocation of the lower jaw, which was reduced by a new and very simple method—viz., “Placing her head against my chest, I passed each thumb as far back on the corresponding side of the jaw as possible. By making a rotary motion from the wrist, I found the bone to yield; by now adding a motion of drawing the hands in towards the chest, the left side first, then the right, slipped into their positions, and the patient closed the mouth,” &c.

Knowing the importance of statistical information on all such subjects, I take pleasure in reporting a similar case, reduced by precisely the same method, and without the knowledge of the operation having been performed before. I would have reported my case sooner, but for unavoidable circumstances.

August 2d, 1855, Mr. —, of Vicksburg, was indulging in a yawn, when complete luxation of the inferior maxillary bone occurred. I made several attempts to reduce it by the old method, but without success. I then determined to resort to a mode of my own. The manipulation above quoted was performed, and with the happiest result.

Vicksburg, Miss., Feb. 15, 1856.

TWO INTERESTING CASES OF INJURY TO THE EYE.

Reported by JOHN MORRISON, Student C. H.

Case 1.—Ellen Flemming, æt. 20 years, sanguine lymphatic temperament, was admitted into the Charity Hospital February 1st, 1856, with an incised wound of the right side of the face, extending from the nasal tuberosity of the os frontis obliquely across the eye and lids to about an inch below their outer angle. The integument facia and adipose tissue was divided, together with the orbicularis palpebrarum muscle, tarsal cartilages, conjunctiva, sclerotica, and lower and internal margin of cornea. The inner portion of the lids was drawn inwards by the tensor tarsi muscle, and the eye could be but partially closed; there was but little hemorrhage from the wound; the anterior chamber was collapsed.

The external wound was cleansed, and its edges brought together above and below the eye by sutures; cold applications made, and an ounce of sulphate of magnesia ordered to be taken at once, with half a grain of morphine at night. February 2d, parts considerably swollen; patient complained of severe pain in the globe of the eye. It was ordered to keep the room dark, cold applications were continued, and half a grain of morphine prescribed to be taken at night. February 3d, a solution of acetate of lead, $\mathfrak{z}\text{i}$ to $\mathfrak{z}\text{vi}$ of water was ordered to be applied externally during the day. February 4th, patient much better; pain in the eye not so severe; the inflammation and swelling much diminished; lead lotion to be continued, with sulphate magnesia. February 6th, the dressing and sutures removed; wound of face and lids perfectly united. On examination, the conjunctiva and sclerotic

were found much inflamed; there was complaint of pain and of the light hurting the eye. A collyrium of sulphate of zinc ordered to be dropped in the eye three times daily. February 7th, the eye wash to be continued; anterior chamber well filled with its proper secretion and well formed; the eye, though inflamed, looked better. February 17th, the inflammation of the conjunctiva and sclerotica continuing, and there being a small quantity of blood effused into the anterior chamber, mercury was ordered to be pushed to pytalism, with the view of promoting absorption of the blood, and preventing the iris becoming involved. Union had taken place in the wound of the globe, and the patient could distinguish light. February 19th, patient pytalised, with great amelioration of the pain and subsidence of the inflammation. Ordered following mouth wash, tinct. iodine comp. $\frac{3}{4}$ ss., mellis $\frac{3}{4}$ i., aqua $\frac{3}{4}$ iv. ss. A blister was also placed on the right temple, and its surface dressed with mercurial ointment. February 22d, the patient still improving; can distinguish the fingers held before her. The conjunctiva still red.

The recovery will probably be complete in this case as far as concerns the form of the eye, and the absorption of blood will be perfect. Whether the inflammation of the deeper coats, which must have necessarily ensued from such a wound, will be fatal to vision hereafter, is a question which cannot as yet be settled. The integrity of the pupil has been maintained, and as far as can be seen there is no deposit of lymph on the capsula of the lens; the perception of light by the affected eye is good, and there is considerable grounds for the hope that a tolerable degree of vision will be preserved.

Case 2d.—G. B., a boy aged ten years, is of delicate constitution and nervous temperament. On the 10th of February, while attempting to open a drawer, his hand slipped from the handle, was drawn violently back, and one of his finger nails wounded the cornea of the left eye. When first seen, two hours after the accident, the cornea presented a small lacerated wound about a line in extent occupying its lower and external portion; the finger nail had evidently penetrated the cornea as the aqueous humor was partially evacuated, the convexity of the anterior chamber much diminished, and the eye flaccid and softened. The iris was pressed forward, so as to lie nearly in contact with the cornea. The posterior chamber was probably almost empty and the crystalline lens *perfectly opaque* was pressed against the pupillary margin of the iris; the pupil was much contracted; sight was entirely destroyed. There was but little pain either at the time of the injury or a few hours subsequent. The force of the blow producing the injury must have been

considerable, as upon examination of the finger nails of the right hand they were found to be very short; there was however no ecchymosis of the lids. It is almost impossible to believe that the sudden opacity of the lens in this case could have resulted from a wound of its substance or its capsule by the finger nails of the patient. These were not of sufficient length to have penetrated so deeply. Its loss of transparency was more probably due to the force of the blow or dependent on its being brought in contact with the iris by the partial evacuation of the aqueous humor. That there are grounds for believing that the latter cause is sufficient to produce opacity of the lens is very well shown by a case which occurred in the hospital not very long since. A patient who had been affected for some time with deep ulceration of the cornea, but in whom the media of the eye were transparent and whose sight was good, called the attention of the physician of the ward at the visit one morning to the fact that he had suddenly become blind in the eye affected. Upon examination a condition of things was found similar to that in the eye above described. The ulcer had penetrated the cornea, the chambers had been evacuated, and an opaque lens occupied the pupil, and was pressed forward so as almost to be in contact with the flaccid cornea. There had been no violence received.

In the case of the little boy the only indications were to cause union of the corneal wound, prevent inflammation, and dilate the pupil. The patient was put to bed, a purgative administered, and the extract of belladonna applied freely to the orbit, cold applications were ordered, and a low diet with exclusion from light enjoined. In the course of three days the wound of the cornea had united but the pupil was still contracted and the iris appeared congested; there was also much intolerance of light. Small doses of calomel with belladonna were prescribed, and as soon as the specific effect of the mercury was produced the patient improved rapidly. The tendency to inflammation was checked, the pupil dilated, and the photophobia disappeared. The eye is now almost free from inflammation, the pupil contracts well and is only very slightly adherent to the capsule of the lens by its uppermost portion. This adhesion will probably be dissolved by the absorption of the effused lymph as the case progresses and form no obstacle to the depression of the opaque lens which is contemplated as soon as the condition of the eye will permit.

REPORT OF THE BOARD OF HEALTH OF THE STATE OF LOUISIANA.

To the Honorable Senate and House of Representatives :

In accordance with the law, approved March 15th, 1855, to establish a Quarantine for the protection of the State, the Board of Health has located a Quarantine Station on a piece of land situated on the left bank of the Mississippi river, distant from this city about 72 miles, and about 34 miles from the head of the Passes. The ground is composed of parts of Sections 52, 53, and 54 of recent United States Surveys, and measures 8 acres front by 40 acres deep, between parallel lines.

The grounds belonging to the Quarantine establishment are spacious, well drained, and with a sufficiency of handsome shade trees ; and the soil is the finest possible for gardens for the use of the station. The proximity of the Gulf of Mexico furnishes means for the ready supply of great varieties of fish. As the intermediate space between the station and the Black bay is unobstructed by trees, the sea breeze has free scope, and as that space is for the most part a salt marsh which is subject to inundations from salt-water tides it is thus kept free from pestilential exhalations.

The buildings erected under authority of the Board are the following :

1st. Main Hospital, 120 feet long by 45 feet wide, two stories high, with galleries nine feet wide both above and below.

2d. A Minor Hospital or Pest House for malignant and eminently contagious diseases. This building is 80 feet long, two stories, with galleries, etc.

3d. A Dwelling-house 42 by 33 feet, with galleries.

4th. A Warehouse 120 feet long by 30 feet wide, built of substantial material and covered with slate. This store is placed close to the river for the convenience of vessels discharging.

All of these buildings have attached kitchens, out-houses, cisterns, &c.

The accompanying tableau gives a detailed account of the affairs of the Board for the past year :

STATEMENT OF THE RECEIPTS AND EXPENDITURES OF THE BOARD OF HEALTH OF THE STATE OF LOUISIANA.

1855.

RECEIPTS.

From the State.

May 25.	Am't of State Warrants, under Act 15th March,	
	1855,.....	\$20,000 00
July 13.	Am't of State Warrants, under Act 15th March,	
	1855,	25,000 00
		<hr/> \$45,000 00

From Mississippi Station.

Gross amount received from Vessels in Cash and Drafts from 1st June, 1855, to 31st December, 1855,.....	\$19,346 85	
Amount received from Hospital and Steward Department,	246 90	
		19,593 75

From Atchafalaya Station.

Amount received from 5th June, 1855, to 1st November, 1855, from Vessels,.....	\$141 94	
Amount received from Dr. Walter Brashear's note dated 2d November, 1855, at 8 months, in favor of and endorsed by Robert B. Brashear for purchase of S. B. Persian,.....	1,800 00	
Amount received from Dr. W. Brashear for purchase of Medicines, &c., at Station,.....	250 00	
		2,191 94

From Rigolet's Station.

Gross amount received in Cash and Drafts from Vessels from 1st July, 1855, to 1st November, 1855,.....	682 49	
		\$67,468 18

1855. DISBURSEMENTS.

Mississippi Station.

May. For S. B. Orleans, at Station,.....	\$1,300 00	
Amount Salary of Officers and Employees,.....	9,782 49	
“ Cash paid Isaac Thayer on contract.....	17,750 00	
“ Cash paid for Furniture, Medicines, Provisions, Stationery, &c.,.....	10,877 01	
“ Two notes of \$1,000 each to Isaac Thayer, due 1-4 April, 1856, discounted,	1,992 00	
		\$41,701 50

Rigolets Station.

For salary of Officers and pay of Employees, Furniture, Medicines, Provisions, Stationery, &c.,	3,471 67
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Atchafalaya Station.

For S. B. Persian,	\$2,000 00	
“ Cash paid for building Shed,.....	1,000 00	
“ Salary of Officers and pay of Employees, Ground Rent, Furniture, Provisions, Medicines, Stationery, &c.,.....	4,811 63	
		7,811 68

Office at New Orleans.

For salary of Officers, Furniture, Stationery, Printing, Rent of Office, &c., from 1st April, 1855, \$6,350 87
Interest paid La. State Bank on State Warrants, discounted,..... 1,008 00

7,358 87

Dec. 31.	By balance Cash on hand,.....	\$3,440 37	
	“ 75 Drafts received from Miss. Station uncollected,.....	1,245 00	
	“ 35 Drafts from Rigolets and Atchafalaya Stations, under protest and suit.....	525 00	
	“ Amount due Custom House Officers to Miss. Station.....	114 14	
	“ Amount of Dr. Brashear's note at 8 months from 2d November, 1855,.....	1,800 00	
			\$7,124 51

 \$67,468 18

E. & O. E. Office Board of Health, New Orleans, January 1, 1856.

CHAS. A. LABUZAN, Secretary.

LIABILITIES OF THE BOARD OF HEALTH.

LIABILITIES.

Amount due on Contract with Isaac Thayer, for building Hospital, &c., at Mississippi Station, 15 notes payable 1-4 April, 1856,.....	\$15,750 00
“ Interest due on maturity of notes at 6 per cent. per annum from date,.....	496 13
“ Due Robert Johnson for Land, Mississippi Station,.....	7,000 00
“ Isaac Thayer on Contract for Painting, Completing of Buildings at Mississippi Station,.....	3,500 00
“ Due on Lease of Office, 59 St. Charles street, 10 months,.....	1,000 00
“ Due for Provisions, &c., for Mississippi Station,.....	1,000 00
	<hr/> \$28,746 13

ASSETS OF THE BOARD OF HEALTH.

ASSETS.

Amount Cash on hand, 31st December, 1856,.....	\$3,440 37
“ Drafts uncollected, but good,.....	1,245 00
“ Drafts under protest and in suit, doubtful,.....	525 00
“ Note of Dr. Brashear, due 2-5 July, 1856,.....	1,800 00
“ Due by Custom House Officers to Mississippi Station,.....	114 14
“ Due by the State on appropriation, under Act March 15, 1855,.....	5,000 00
	<hr/> \$12,124 51

It will be perceived that a further appropriation will be required to meet the liabilities of the Board. The great expense attending the establishment of a quarantine at three stations exhausted the appropriation, and the proceeds of the Mississippi Station. The receipts at the Atchafalaya and Rigolets were but meagre, and the expenses for their establishment large. It is confidently believed that the establishments will hereafter support themselves, and that no further aid from the State will be required. I am therefore the more emboldened to ask for the appropriation of twenty thousand dollars.

As will be seen by the tableau the cost price of the building has been \$39,500.

The establishment of the station, either within a few miles of the city or near the bifurcation of the river, would have been desirable, as lessening the usual inconvenience of quarantine restrictions. But the law forbade such establishment nearer to the city than seventy miles, and no suitable place could be found at or near the head of the Passes.

Two other quarantine stations were also established in accordance with the provisions of the law above mentioned; one on the Atchafalaya river, the other at Fort Pike, on the Rigolets. These stations, however, have been discontinued since the first of November last.

It is needless for me to urge upon the Government of the State that it is its solemn duty to protect its citizens, not only from foreign invasions and internal outbreaks, but also from the invasion and spread of diseases. The obligation is imposed by the law of nations and of nature. It is a principal object of government; and the government is but poorly executed when the object is not attained, so far as human means can accomplish it. The city of New Orleans, and the State at large, have already suffered incalculable losses from the introduction and spread of epidemic diseases. I do not refer alone to those irreparable losses of friends, which have made ours a land of mourning, but I speak particularly of losses in dollars and cents. To the frequent recurrence of those epidemics we are chiefly indebted for the transient character of much of our population. Instead of having the wealth, beauty and conveniences of our city and State increased by the permanent investment here of the products of our fixed capital, we have it annually drained away by a system of absenteeism, which is a curse to any country; and any evidences of progress we may exhibit have been of painfully slow growth, and are but results of a natural necessity.

As a first step towards the performance of its duty to relieve the people from the grievous burdens thus imposed upon them, the Govern-

ment of Louisiana created a system of Quarantine at the last session of the Legislature. The expense attending its establishment was of course large. Had it been much larger, however, it is a serious question whether the Government would have had the right to consider it an obstacle to the full performance of its duty. The fifty thousand dollars appropriated is but a small capital to produce so enormous an interest as is to be expected from it; yet it is too large a sum for the State, particularly in its embarrassed financial condition, to cast away without any or a sufficient consideration.

Since the organization of the quarantine there have been examined at the different stations eleven hundred and forty-nine vessels, out of which only twenty-one were subject to detention on account of either having sickness on board, or being in a foul condition. The interruptions of commerce resulting from the establishment of the Quarantine, has been confined to a few vessels, and these generally of the smaller class, engaged in the trade with the West Indies.

The total value of merchandise annually imported into New Orleans from sea and from the interior, may be stated at about \$166,000,000, this being the average of our imports for the last four years. Of these, the imports from sea amount to about \$46,000,000; \$16,000,000 of which are foreign, and \$30,000,000 are domestic. The danger of any serious interruption of the trade of this city from the introduction from abroad of pestilence, is very remote, when its commercial intercourse with the West India Islands, and the ports of Mexico, Central America and Honduras are excepted. In these, yellow fever especially is generally believed to be endemical. The total value of our imports thence is only \$2,583,713; of which \$938,538 are from Cuba, and \$57,410 from the rest of the West India Islands; \$1,497,641 from Mexico, \$48,990 from Central America, and \$47,134 from Honduras.

But for the epidemics which have prevailed during the last four years, it is fair to suppose that our gross imports would have been at least thirty per cent greater, or, in other words, that they would have been worth \$216,000,000 a year. Yet our imports from the entire tropical ports referred to, being unaffected by such considerations, there is no reason to suppose that they would have been greater, had the health of our city and State been better. If, as is very generally believed, our losses and sufferings during the last four years have been chiefly, if not entirely, owing to our unrestricted intercourse with ports in this region, I need not say how much to our happiness and prosperity it would be wholly to exclude this trade from our ports, even were it twenty-fold

greater than it really is. In the language of Alderman Hume, Chairman of the Committee of the Charleston City Council, in his report to that body upon the source and origin of yellow fever, made December 20, 1853, "Should the restrictions on the commerce of the West Indies by Quarantine amount to the suspension of the whole trade for six months each year, the evils to the city will be less than it now suffers from the annual apprehension of the fever; and the pecuniary loss of a hundred years by the Quarantine establishment cannot equal the ruin and desolation of a single season of pestilence." But no such sacrifice is required to secure us against the introduction of foreign disease. It is only necessary that this trade should be subjected to such supervision and precautions as will enable us to avoid the incalculable evils it entails on us. Whether or not yellow fever originates in this State and city remains undetermined on account of the absence of everything like proof: but that this deadly scourge is, year after year, imported among us from inter-tropical ports is a fact as unquestionable as that it is communicated by the city to the country.

Quarantine is based upon two assumptions: First, that epidemic diseases depend on a specific contagion, and secondly, that by the prevention of communication with infected persons and articles, it is practicable to prevent the introduction of that contagion into uninfected communities. The existence of quarantine laws and sanitary regulations in all of the enlightened governments of the world is a strong argument in favor of the policy of such establishments, for a system of such antiquity, and so constantly sanctioned by the test of strict investigation on the part of learned and practical men, must be founded on true principles. In fact, most of the rules of cleanliness and purification established by the Theocracy of the Jews were based upon the known laws of disease. We must confess that it is a subject upon which the strongest intellects have differed. Yet it is fair to allow that the great mass of testimony is in favor of the system, a fact made manifest by the almost universal practice of civilized countries. A measure, then, the results of which are found so generally useful to other ports, by parity of reasoning, must be beneficial in its application to our own cities and State, and should receive such legislative consideration as would establish it here in a proper form and permanent basis. Of all cities, New Orleans has suffered most from its reputation of unhealthiness, nor will it ever enjoy the prosperity which its natural advantages ought to confer, until it is freed from the odium of insalubrity. That this object is to be attained by a quarantine establishment alone no one pretends to

aver, although it is certainly a most important auxiliary; and it is more than probable that unless means are adopted for the exclusion of disease by importation, all exertions made to preserve effectually the health of this city will fall short of the object. It is only by the adoption of vigorous efforts internally to improve the health of New Orleans, and at the same time exerting proper vigilance to exclude disease from abroad, that success can reasonably be expected.

As to the influence of quarantine in excluding diseases, such as small pox, typhus fever, and others admitted to be contagious, there is no dispute. That yellow fever is one of this class, we have every reason to believe. Its capability of introduction into other countries is admitted by all who have carefully examined its history with unbiassed minds.

The Report of the Sanitary Commission of New Orleans on the epidemic yellow fever of 1853, published by authority of the City Council of New Orleans, states that the Commission is unanimous in the opinion that quarantine ought to be established.

The importation of epidemic yellow fever is a question of fact to be determined by evidence. The evidence about to be adduced appears to be decisive in favor of its importation. Without laying much stress upon the fact of the introduction of epidemic yellow fever in Gibraltar in 1813, from Cadiz, by the ship *Fortune*; nor upon that of the yellow fever of Barcelona, in 1821, imported from Havana by the ship *Grand Turk*; nor on the case of the *Eclair*, and the history of the epidemic at Boa Vista, in 1845 (about which opinions seem to be divided), we can look around us and find in the spread of the yellow fever in our own parishes and State ample proofs of the contagiousness of this southern scourge.

A thousand cases, if necessary, might be cited during the spread of the epidemic throughout the parishes of Louisiana and Mississippi to prove that the yellow fever is as contagious and also as infectious a disease as small-pox or the plague. During the summers of 1853, '54, and '55, in nearly every instance where friends or relations visited those attacked with the disease, they became in turn new centres from which the contagion spread; and the fact cannot be controverted, that all who adopted a rigid quarantine on their plantations enjoyed good health, and total exemption from the disease.

To account for the origin and spread of the terrible epidemic which devastated Norfolk and Portsmouth this last summer, it is not necessary to imagine that it was the same disease which appeared in Rio Janeiro five years since; and that it has gradually travelled along the Carribean Gulf and Atlantic coast until it has reached Norfolk and Portsmouth;

nor is it necessary to look into certain local conditions of those cities, for they were just as filthy, as marshy, and the air as much charged with bad odors and miasm during those years when the disease did not occur, as during this last summer. The arrival of the steamer Ben Franklin from an infected port, and the outbreak and spread of yellow fever after certain of the crew of the vessel had been attacked, account for it in a more satisfactory manner. We annex the following from the *Norfolk Herald*, which, though not from a professional source, is as authentic and reliable as could be desired :

“As a number of cases of yellow fever, traceable to the steamer Ben Franklin, some of them terminating fatally, have occurred in Gosport recently, and as doubtless the most exaggerated accounts of the circumstance have gone abroad, we have deemed it our duty to obtain and publish a correct statement of the facts from the most authentic and reliable sources.

“The steamer Ben Franklin, Captain Byman, from St. Thomas, arrived at Quarantine on the 7th of June. She was boarded by the health officer to whom the captain stated that he had no cases of yellow fever on board; a fireman had died suddenly from disease of the heart, and the man who took his place had also died of exhaustion; with these exceptions the crew had been entirely free from disease. The steamer remained at Quarantine twelve days, and no case of sickness having occurred in that time, the health officer finding the vessel in a cleanly condition, with the consent of the Board of Health, gave a permit to come into the harbor on the 19th of June, upon the positive condition that her hold was not to be broken out. Having contracted with a party in Gosport to have her work done there, she was taken up to Page & Allan's ship yard (next to the navy yard wall). There she remained nineteen days, during which period, it is stated, the captain violated his engagement in having the hold broken out. On the 5th of July, a man who had been at work on board of her, was taken sick, and his disease proved to be the yellow fever. This was the first case in twenty-eight days after the steamer's arrival. He died on the 8th of July, and the town council of Portsmouth immediately convened and issued an order to send her back to Quarantine, which was done forthwith. Following this case were a number of others, among whom were six of the hands belonging to the steamer, two of whom died. In Gosport six persons have died in all, including the man before named. About fifteen cases remained under treatment. As yet the epidemic has been confined to Page & Allan's ship yard.”

In view of such facts as the above, how is it possible to deny the beneficial influence of a well conducted system of quarantine.

Had the steamer Ben Franklin, during her detention at quarantine, been properly cleansed and thoroughly disinfected, and her cargo discharged, the introduction of the yellow fever virus by the arrival of this vessel from a yellow fever port would have been prevented. Instead of which it operated as a new element to the already vitiated atmosphere, and worked as a new leaven to a new production.

But though there does not seem to be any reasons for doubting that yellow fever may be caused by filth, heat and moisture, the fact that it has in innumerable instances been carried from one place to another seems to be established beyond all question. Even if the evidence as to its importation were less decisive than it is, or the opinions of medical men more decided, it would not warrant the repeal of the restraints on the intercourse with suspected ports. This is not a matter in which innovations should be rashly introduced; wherever there is doubt, it is proper to incline to the side of security. In some cases, perhaps, quarantine regulations have been carried to a needless extent, but they have more frequently, we believe, been improperly relaxed.

In view of the importance of the case in all its bearings it is evident that one experiment, under even the most favorable circumstances, could not be counted a sufficient test of the efficacy of our system of quarantine; but the circumstances of this, our first season, have been so untoward that a decision against it would be rash. One of the diseases against which it was principally established is yellow fever, yet the yellow fever had already shown itself among us two months before the quarantine had gone practically into operation. After its tardy organization, and at the onset, the Board of Health met with many obstacles. The selection of suitable locations, the erection of suitable buildings in a wilderness, the choice and accumulation of the proper paraphernalia, were all calculated to produce delay and trouble. And after this trouble and delay were passed, and the establishment was in full operation, there was bitter opposition manifested to its continuance. Much was said about the heavy burdens it imposed upon commerce by the detention of vessels and by the payment of the dues imposed by the statute. Admitting these complaints to be true, yet it was the law of the land and could not be discontinued until repealed by proper authority.

But it will be seen from the accompanying tableau that the whole amount of dues collected from ships has been but \$20,171 28; and, also, that the detention of vessels has been only in cases of necessity and for as short a time as consistent with safety.

Now, who is so blind to every sense of justice and humanity as to compare the trivial inconvenience resulting from the delay of a few persons or freight for only a few days to the desolating catastrophe—the great public calamity of an epidemic of yellow fever? Who is there that will confess himself the advocate of a system that values at so insignificant a price the lives of our citizens?

It is impossible, then, to suppose these complainants as having that interest in the welfare of our people which entitles their opposition to respect. Yet, while it is true that more was not to be expected from traders and adventurers, whose selfish schemes for speedy fortune and removal with it hence might be retarded, it was unfortunately the case that their murmurs tended to clog the efforts of the officers, to induce lawless men to disregard the legal Quarantine regulations and to obtain for them immunity.

But in spite of its inauspicious commencement, and of all subsequent opposition, it may be safely asserted that the quarantine system adopted by the last legislature has been productive of much good.

Vessels, on board of which was that highly infectious disease called “ship fever,” have been detained, and thoroughly cleansed and disinfected before proceeding to the city. A vessel containing immigrants, among whom prevails that scourge, the “small-pox,” is now in detention at the Mississippi station; and it is probable that an epidemic of this disease is thus prevented. When the yellow fever epidemic of last summer was dying out from this city, many immigrants were kept away, whose ingress would doubtless have proved fatal to them, and, perhaps, have caused the disease to rage anew. Even so late as December, a vessel was stopped, on board of which were found six cases of yellow fever.

Let us not be discouraged, then, nor diverted from the maintenance of such an equitable institution. Truth will assuredly prevail in the long run, despite the opposition of ignorant bigotry on the one hand and of the basest mercenary intolerance on the other. We have only to keep the subject prominently and steadily before the public mind, by collecting accurate and well authenticated facts from every quarter, which will enable us to meet the objections or overcome the prejudices of its opponents.

But I cannot conclude my Report without doing justice to the members of this Board. From the spirit and temper with which they entered upon a painful and unsought duty, and from the earnestness and diligence with which they labored amidst the outcries of an opposing com-

munity, and notwithstanding the vile abuses heaped upon them by mercenary newspapers, too often deaf to the revelations of truth and equity, I deem it but an act of simple justice, to express my conviction that they were actuated by elevated considerations, and that their aim was truth and the good of the public.

In conclusion, I am no partisan, I have written this Report simply as an act of duty, and I hope and trust in an equally inoffensive spirit. If I have spoken strongly, it has been from no disrespect to the opinions of others, for whom, though opposed to their views, I entertain every deference, but from a wish that the facts before me should not fall short of that construction and application to which I think them entitled. No one who has thoroughly investigated the subjects of quarantine and yellow fever, but must be deeply impressed with the numerous difficulties which surround it—and as equally clear-headed and competent men have adopted opposite views concerning it, no one, whatever his intellect or pretensions, is warranted in arrogating to himself that he is “Sir Oracle” on a question, never destined, probably, to be settled by universal assent.

All of which is respectfully submitted,

SAMUEL CHOPPIN, M.D.,

President of the Board of Health, Louisiana.

SPECIAL SELECTIONS.

OBSERVATIONS ON THE USE OF CRYSTALLIZED SUB- ACETATE OF LEAD IN HYPERTROPHY OF THE HEART.

BY J. L. BRACHET.

[Paper read to the Académie de Médecine.]

When the diseases of the heart are considered, and above all aneurism, the physician can not but view with dread the terrible anathema placed at the head of the work of Corvisart, “*harret lateri lethalis arundo*.” Experience has unfortunately but too well confirmed its truth. The efforts of Albertini, Valsalva, Laennec, Hôpe, Kreysig, and more recently, those of Bouillaud, have been far from producing the brilliant results promised from them. Science and humanity yet demand means of cure. Bleeding, modified in many ways, digitalis,

the cyanides and other sedatives, ammonia, quinine, the preparations of iron, acetate of potassa, mineral waters, and regimen, have in their turns taken a stand and inspired hopes, which have not been fulfilled. But should this deter us from further research for the discovery of more efficacious means? Should we recoil before the many difficulties which beset our path? You at least, gentlemen, will not think thus.

I beg to submit to you a few facts concerning aneurism; I trust I may be able to call the attention of practitioners to this important subject, and to a remedial agent which has succeeded well in my hands. My experience dates back for thirty years. In 1848, in my prize essay on colica pictonum, I stated that I had made frequent use of the acetate of lead in large doses, without ever inducing any unpleasant effects. I then had reference to its use in the treatment of aneurism. Since that time I have continued to use it on all occasions that presented themselves for its exhibition, and have thus been enabled to collect many observations concerning the effect it produces. It would be an abuse of your patience to enumerate all of them at this time, more particularly as my principal desire is simply to call your attention to this plan of medication; I shall therefore confine myself to the report of a few cases.

Case 1st.—A son of M. N. had been at boarding school for several years. At the age of twelve it was first remarked that he showed symptoms of oppression in his breathing after exercise, and subsequently that the action of the heart was much increased. For nearly three years he was subjected to all rational treatment. Bleeding; the preparations of digitalis; hydrocyanic acid in all its forms; nothing seemed to answer; a few days relief would be followed by a recurrence of the symptoms. The patient was removed from school. He was thought to be affected with aneurism. He was at this time fifteen years of age. When first I saw him he presented all the signs of precocious adolescence: his heart beat with great force and over a large space; the least movement caused an increase in the palpitations and the symptoms of oppression. All his symptoms indicated hypertrophy of the left ventricle considerably advanced. I began my treatment by blood-letting to twelve ounces, enjoined repose, and ordered emollient drinks, with the cherry laurel water. A week after this his symptoms seemed to have moderated; the palpitation was less marked. The mild treatment was continued; two weeks elapsed without further improvement; digitalis was then ordered in medium doses; a month later no result from the treatment. I then thought of the sugar of lead which I had seen used by Dupuytren, and ordered it combined with digitalis in the following manner:

Plumbi Acetatis, ℥ii ;

Extracti Digitalis, ℥i. m., ft. pil No. 20.

The patient took one of these pills morning and night. Five days after beginning the treatment the action of the heart was less violent but the impulse was as diffuse as before. One pill more was ordered in the morning. At the expiration of another five days further improvement. Dose increased to two pills morning and night. This treatment was continued for two months. The patient was seen every five days. At each visit the symptoms were found to be less intense and the volume of the heart sensibly diminished.

The treatment was now suspended for fear of inducing the toxic effects of the lead. Ten days afterwards condition of patient the same. No farther treatment for some time. The patient, becoming tired of confinement, desired to take exercise. Every time that he went out he returned more and more fatigued ; the effort of ascending the stairs increased the palpitation which gradually assumed a character and permanence indicative of a return of his disease ; repose was again ordered and the use of the medicine recommenced. A change for the better was soon observed. The continuation of the treatment produced a diminution in the volume of the heart which was perceptible from week to week. In the course of four months the organ seemed to have returned to its normal condition, nevertheless the palpitation recurred to a certain extent upon any sudden emotion or movement. At this time, twenty-five years after treatment, the condition of the patient is good, his palpitation occurs but seldom, and during repose it is impossible to detect anything abnormal in the condition of the heart.

The favorable action of the acetate of lead seems to be well demonstrated by this case. Several plans of treatment which had been persevered in for a length of time had completely failed ; the use of the lead combined with digitalis resulted in an improvement which increased steadily. When discontinued, the disease tended to resume its former gravity, when recommenced the symptoms moderated rapidly. I desire to call attention to the fact that my patient was young. This is important, for it has been during this period of life that I have had the most fortunate results from my treatment. The reason will appear hereafter.

Case 2.—Madam X., of good constitution, had enjoyed uninterrupted health up to her 25th year. At this period domestic afflictions interrupted the harmony of her life. Brooding over her sorrows made her melancholy and morose. She became nervous and experienced sensations of palpitations which seemed to augment daily. She lost her

appetite and her rest was disturbed. The cardiac symptoms became more urgent and the heart's impulse began to be felt over a large space. The functions of the lungs were interfered with and great oppression ensued. I saw her first in this condition.

The left ventricle appeared to be largely hypertrophied and the heart's action laborious. I ordered bleeding to twelve ounces and placed the patient on demulcent drinks and the cyanic preparations. This treatment persevered in for two weeks produced no effect. The disease seemed to progress. The patient now went into the country where she remained a month. She returned worse. The action of her heart was much increased and its impulse extended over a larger surface. She had ceased to menstruate. Fifteen leeches were applied to the internal surfaces of the thighs; the blood flowed freely. A treatment similar to that first made use of was pursued for two weeks but with no good result. The pills of digitalis and lead were now ordered. She began by taking two a day. Every fifth day the dose of the pills was increased by one until the patient took six daily. Under the influence of this treatment the palpitation ceased by degrees, the space over which the heart's impulse was felt diminished, and at the end of four months the organ had returned to its normal dimensions.

The action of the lead in this case can scarcely be doubted. Demulcents and calmants with repose persevered in for three months produced no effect. Eight days' treatment with the lead produced a diminution in the volume and action of the heart. The improvement was uninterrupted, and at the end of four months all morbid symptoms seemed to have disappeared.

Case 3.—Madam G. has had five children two of which died very young. Endowed with a strong constitution she had always enjoyed good health until she had the misfortune to lose a son aged 19 years. While watching by his sick bed she took but little heed of herself, and the sleepless nights passed in the sick room during a rigorous season terminated in an attack of rheumatism from which she recovered with difficulty. Since that time she had experienced palpitation of the heart continually. Years passed, the palpitation increasing causing severe oppression which at times amounted almost to suffocation. During one of these attacks of difficult breathing I saw the patient for the first time. I had but little hope of effecting a cure; the organic lesion seemed to be too extensive; nevertheless the lead pills together with sedatives were prescribed and my astonishment was great when at the end of eight days I observed a great improvement, the usual condition of things

re-established, and my patient resuming her ordinary avocations. Ten months afterwards and without any apparent cause she suffered another attack of suffocation. This was accompanied with slight œdema of the feet. I had immediate recourse to the treatment before pursued and in less than two months she was comparatively well. Since that time the patient has twice had an exacerbation of her symptoms and on each occasion the treatment has been successful in establishing the usual order of things. The last attack was so severe that I was doubtful of her recovery; there was considerable effusion into the serous cavities, which, with other symptoms, gave rise to the most serious apprehension. Diuresis was established and absorption of the effused liquid was effected, the oppression however remained; the pills of lead and digitalis were ordered and their use continued for three weeks, when her condition was so much improved that she was able to walk to my house to thank me for the relief afforded her.

I shall confine myself to the relation of these few cases. They appear to me sufficient to inspire confidence in the efficacy of the subacetate of lead in the treatment of the affection in question. Were it necessary I could add many other cases but it is scarcely requisite, they would only confirm the results which I have detailed. It must not however be supposed that my success had invariably been good. Let me hasten to disabuse you of this opinion. I have frequently been unsuccessful. I have on such occasions succeeded only in producing a temporary amelioration. These cases have usually been of hypertrophy of long standing, and it would only be to destroy confidence in the remedial means recommended to make use of them in such cases with the expectation of a permanent cure. But in cases of recent hypertrophy my success has invariably been good.

It may be asked in what manner the acetate of lead acts in these cases. On this point I am forced to declare my ignorance. All that can be possibly said, judging from its direct action on the tissues, is that it determines a species of astringency which favors the contraction of the capillaries of the organ and produces an absorption of the hypertrophied molecules. When the acetate of lead, properly diluted, is applied to the skin or any other tissue a remarkable styptic effect is seen which is specially observable upon the buccal mucous membrane. The tissue contracts and becomes rugose; it is rendered pale; and in case inflammation exists resolution follows. That which takes place in parts exposed to the eye may occur in deep seated organs. But here an objection arises. The acetate of lead has never been observed to produce any effect

upon other deep seated organs of the economy affected with hypertrophy, and from this we would be led to infer that its astringent and resolute effects would be wanting in hypertrophy of the heart. This reasoning would be just and sufficient did we not know that certain agents have a specific action on certain organs. I believe firmly in the special elective action of the lead upon the heart as much as I do that mercury acts upon the salivary glands, cantharides on the bladder, or diuretics on the kidneys.

It will be understood why the operation of the medicine is more prompt and effectual in young subjects. In them the movement of the integral molecules is effected more readily; the nutritive action is much greater.

If, however, this interpretation of the effect of the remedy should meet with opposition let me declare that I attach but little importance to it.

I thank you for the honor which you have accorded me in permitting me to communicate directly to you a few of the cases in which I have employed the sugar of lead. My object as I stated before has been simply to call the attention of yourselves as masters of the art to a most important point in the therapeutic treatment of one of the gravest of diseases.

SUMMARY OF MEDICO-CHIRURGICAL OBSERVATIONS MADE IN THE ARMY OF THE EAST.

By Dr. SCOUTTETEN.

The experience acquired at Gallipoli and Varna seems to show that the transmission of cholera takes place with greater facility in the East than in the West, and that contagion is more prompt in proportion as the miasm is more concentrated. This determined the medical inspector, Mechel Levy, to place cholera patients under tents. Cholera symptoms differ materially from those observed in France. They can be said to come under two forms, one acute the other chronic; the first being characterised by all the well known phenomena, and the second supervening on the first. We have been able to send patients in the chronic condition from here to Constantinople, a circumstance which has diminished the number on hand materially.

Our treatment has not been enriched by any new medication, but we have employed with success in cases of stubborn diarrhoea sub-nitrate of bismuth in doses of one to two drachms daily. Many of the patients presented morbid phenomena hitherto unobserved. They experienced

great pain in the soles of the feet which increased at night and at times affected all the limbs. The cause of this is well known. The soldiers, forced to work in the trenches before Sebastopol in the months of November and December in the midst of heavy rains, the feet completely immersed in water, had undoubtedly contracted this neuralgic affection of the feet. The treatment for this, which in almost every case had been ineffectual, consisted in emollient fomentations, opiated liniments and foot-baths, together with the internal administration of opium, ether, and the phosphates. Typhoid fevers did not prevail epidemically but they made their appearance after the choleric stage. During the month of November the army was attacked with scurvy; for these symptoms the bitter tonics, the wine of Cinchona and Bordeaux wine were prescribed.

Towards the end of December, 1854, a considerable number of soldiers arrived from the Crimea presenting sloughs on their inferior extremities of variable depth and extent, mortification of one or more toes, of a deep grey, brown or black color of the whole member. It is worthy of remark that the hands, ears and nose were invariably exempt from this affection. This singularity attracted my attention and led me to investigate the cause of the difference existing between these congelations and those which I had observed during the Russian campaign. During the winter of 1812 the temperature fell twenty degrees below the freezing point of Reaumeur, whilst in the Crimea the temperature was rarely as low as 5 or 6. In Russia our soldiers marched, were active, and freezing was occasioned by the rapid subtraction of caloric; but in the Crimea the conditions were very different, our soldiers were kept immovable in the trenches, where melting snow bathed their feet, thus slowly losing their caloric, the blood becoming coagulated in the vessels, producing more or less extended death to the parts. Quinine, powdered oak bark, the chlorides, proved inefficacious.

The exceptional circumstances attending the war in the Crimea, the form, velocity, and weight of the missiles projected by gunpowder gave to the wounds an entirely new character. Purulent infection frequently supervened after an operation. As far as my experience goes, I have always endeavored to bring about union of the wound, either by simple bandage or a few sutures; the tissues being as completely protected from contact with the air as possible, and yet unfavorable symptoms would manifest themselves at times with unheard of rapidity. It seems evident that the ill results which happen in the cases of those upon whom amputation had been performed, did not

depend upon purulent absorption in the sense in which that expression is usually understood, for suppuration in the soft parts was never observed, and the point of departure of the disease seemed to be the medullary substance, which took on inflammation almost spontaneously. This disease has been called *Osteo Medullitis*.

Traumatic hemorrhages also presented peculiarities which are worthy of attention. The soldiery of the Crimea had been enfeebled by the extraordinary circumstances in which they had been placed. The prolonged use of salted meats, and the deprivation of fresh vegetables, had produced modifications in the condition of the blood, characterized by diminution of the fibrine and globuline; it was pale, lacked plasticity, and its too great fluidity permitted its escape from the vessels with a facility which was the despair of the surgeons. These hemorrhages did not occur immediately after operations. It was only eight, ten, or fifteen days after amputation that the accident was observed. The perchloride of iron did not answer in these cases as well as had been anticipated.

The sabre-bayonet, the end of which is double-edged, is convex inferiorly, whilst superiorly it is slightly concave. When this weapon is thrust, it penetrates from below upwards, and in withdrawing it divides those parts which are in contact with its upper or concave edge. Hence it results that the wound is always large, and almost always mortal.

For the first time, also, cylindro-conical balls have been introduced in warfare. These balls, nearly an ounce in weight, can be projected a distance of over twelve hundred yards. In their course they describe a short spiral, which has the effect of keeping the apex of the cone in front. They penetrate deeply, tearing as would a corkscrew.

Chloroform has been employed upon a vast scale, and without accident. The Russians were not so soon brought under the influence of this anæsthetic agent as the French, a fact which may be attributed to the abuse of alcoholic liquors by the former.

In amputating, the circular operation for the thigh, leg, or arm has resulted more happily than the flap. Experience has shown that the smaller the surface of the wound the greater the chance for a prompt cure. Resection of the head of the humerus has been recommended and performed; that of the elbow and the head of the femur is not considered advisable. In the case of the elbow, it is very difficult to avoid division of the ulnar nerve, which produces paralysis of the muscles to which it is distributed. Moreover, the extent of the wound and the conformation of the parts favor the formation of abscesses which burrow in the forearm, necessitating subsequent amputation. The objections

against the resection of the head of the femur are still more urgent; the weight of the limb prevents the apposition of the bone against the cotyloid cavity, and as it has no support, it can acquire no solidity. Amputation at the hip joint should be preferred in all cases, experience having demonstrated that it is productive of more fortunate results.

UN DINNER DE CHEVAL.

"Do you like horse?"

"How do you mean?"

"I mean the flesh of that animal."

"Why, really, I have never eaten any."

"Would you like to taste it?"

"Is it good?"

"Excellent! Allow yourself to be tempted."

"When and where do you eat horse flesh?"

"At my house—Saturday evening, at six o'clock, soup, soup meat, and roast are from the horse; what do you say?"

"I accept."

Such was the conversation which, on Tuesday, after the meeting of the Academy of Medicine, took place between M. Renault, the skilful and scientific director of the Imperial Veterinary School at Alfort, and myself.

I confess that from Tuesday to Saturday it was necessary to screw up my courage. But why should we not eat horse? Why should the flesh of this beautiful animal excite any more disgust than that of the ox, the sheep, or of those really unclean animals, such as the hog or the duck. On how many occasions could the meat of the horse enter into the general alimentation, either as a supplement or as an accident! Beneath all this, perhaps, there may be a great question of political economy; let us, therefore, use our influence to solve it. The high price of all butcher's meat is a true public calamity; if it were possible to introduce horse meat into the general consumption—a nutritive article—would not other meats become more accessible to the masses, &c.

By such considerations as these did I endeavor to conquer what remained of my repugnance—a repugnance instinctive in man for all aliment which he does not know, and to which he is not accustomed.

I confess that I took the further precaution to make a light break-

fast, in order that the edge of hunger might make me less difficult to please. In fact, I arrived at Alfort in a most satisfactory state of appetite.

The moment for the experiment is here. But first, one word concerning the experimenters. They were, M. Renault, our Amphitryion, who was not making his *debut* in this matter, and who professes to hold in high esteem the flesh of the horse. That very morning, at breakfast, he had eaten the liver of this animal, which he declares he had found extremely good. M. Renault commenced, therefore, the experiment with the certainty of success. Professor H. Bouley, the keen and witty opponent of M. Malgaigne, in the discussion on the seton—this experimenter did not appear to me to be as warm in his praises of the horse as his colleague: he acknowledges some slight remains of ancient prejudice; nor was this his first essay, and he did not seem to retain the most agreeable remembrance of his past experience. M. Reynal, chef de clinique, author of a very interesting work on the toxicological properties of brine, who shared openly M. Renault's high opinion of horse flesh. M. Robinet, from the Academy of Medicine, the terrible, yet amiable, exterminator of all new and secret remedies; M. Debout, principal editor of the *Bulletin de Therapeutique*, very well disposed to go through the experiment conscientiously. M. Foubert, Chief of the Bureau of Subsistence in the Department of Agriculture and Commerce, very much interested in the question. M. Prevost, Chief of the Bureau of Agriculture, in the same department. M. Barral, the professor of chemistry, the faithful editor of the works of M. Arago—one of his friends, whose name I have unfortunately forgotten. A lady! yes—too fastidious gentlemen—an animable and lovely lady, who set us all an example of resolution and courage; and, finally, your humble servant.

One word on the subject of the experiment. It was an old horse, who, after twenty-three years of good and loyal services, had had the misfortune to become paralyzed in his hind quarters. He was, moreover, fat, and be it well understood, free from all suspicion of disease. He had been killed on Wednesday. The experiment was not made under the most favorable circumstances, and M. Renault remarked very truly, that the flesh of a young horse would certainly give much more satisfactory results.

The experiment commences. M. Renault has arranged matters very fairly. Side by side with the subject of experiment stands the point of comparison. Horse soup, beef soup; horse soup meat, beef soup meat; same quantity, same quality; compare, judge; nothing could be better.

Horse Soup.—General surprise! This is perfect, it is excellent, it is luscious, it is aromatic, its taste is rich, it is the admirable and classical soup, the tradition of which is fading, unhappily, day by day, from our Parisian household, and which has become a myth even in our best eating houses.

Beef Soup.—Yes, it is good; but in comparison it is inferior, it is less accentuated in taste, less perfumed, less racy.

The jury unanimously declare that horse, even old horse, makes a superior soup; that it is impossible to distinguish it by the taste from the richest beef soup, and no one whose attention had not been called to the subject could perceive the least difference—same color, same clearness.

Horse Soup Meat.—The flesh is browner than that of beef, dryer, and tougher, otherwise, no particular taste; it is the flavor of boiled beef, but not of a first quality; I have eaten better beef and much that was inferior. To sum up the whole, it is very palatable; and the poor, who buy the worst qualities of beef or of cow, would find a sensible difference in favor of boiled horse meat. But let us remember that we have had to do with an old horse, whereas a young animal would, no doubt, have supplied a superior “bouillie.”

Beef Soup Meat.—This was a magnificent tenderloin, just the right age. Evidently this is better, more juicy, more tender.

The jury acknowledge that the boiled meat of this old horse is good, exempt from any particular flavor, being easily mistaken for beef of the second and third qualities, and appears to be a wholesome and agreeable article of food.

As side dishes, some Scotch collops, and a delicate chicken, with a white sauce, occupied the attention of the guests until the roast.

Roast Horse.—This was a sirloin of the animal slightly pickled and larded. A burst of applause. Nothing could be better, finer, more tender—a sirloin of venison, which it resembles in flavor, is not superior. One member of the jury asks permission to carry off a piece. Several send up their plates for a second slice. The *gourmets* do not know yet the excellence of this morsel. I recommend it to them. It is perfect in every point. Ah stomach, how ridiculous were your little prejudices!

The jury unanimously and enthusiastically declare that the sirloin of this old horse should rank with the most delicious meats.

M. H. Bouley feels himself conquered and convicted and bravely confesses it.

But strict truth compels me to say that some excellent roast partridges

which succeeded the roast were not absolutely overlooked by the jury any more than the *entremets* or the nuts and fruits of the desert, which proves that the meat of the horse passes without trouble the difficult defiles of the digestive highway, a very interesting element in the discussion. For my part, remembering an aphorism both witty and true of one who perfectly understands the hygiene of the stomach, our colleague, M. L. Viron, I waited twenty-four hours before writing these lines in order to declare that I wrote without any remorse of digestion.

To sum up—the flesh of an old horse, of 23 years of age, gave us—

A superior soup ;

A good and very eatable soup meat ;

And an exquisite roast.

Now is that not a very interesting experiment? Let us return to M. Renault who investigates this subject on account of the question of political economy which it involves ; he will treat it calmly and scientifically as he does everything, without exaggeration or enthusiasm. Can we not already foresee a number of instances where the flesh of the horse which to-day is turned over to the soap-boiler might be usefully employed as aliment? A vigorous young horse breaks his legs, dies of apoplexy, of colic or of any other accident, why not, since his flesh is good, healthy, agreeable and nourishing, let this animal enter into the general consumption? No doubt a stricter inspection would be necessary than for any other animal, for the horse is subject to a dreadful disease, one that is transmissible to man. It is true that M. Renault affirms that the cooked meat of a diseased horse loses all contagious qualities, and he is willing to prove it on himself. But then what danger for the butchers, the skinner, and even our own cooks.

But beyond these conditions of disease can we not foresee a period and that not far distant perhaps when the flesh of the horse shall be looked upon as a precious reserve in the great question of general alimentation? Already at Bruxelles there is a very well patronized butcher shop for horsemeat. One has been established for some time at Bavaria, another in Saxony, &c., &c. Even here at home, at Alfort, those who live near the school, since they have tasted horsemeat, every time that a horse is killed and that the director of the school has given it as his opinion that the flesh is fit for food, the neighbors, I say, hasten to secure a piece, and of the animal of which I yesterday had my share not one particle remains. And really I declare that they are not to be pitied who have consumed him. Has it not often happened in the rough chances of war than an army in want of provisions has been obliged to kill and eat their horses?

A dire extremity without doubt, but one which in a hygienic point of view has no serious consequence, and that is the essential point for the time being.

It is doubtful, however, as long as there are beeves, cows and sheep, whether the flesh of the horse will become an element of general consumption. The horse is too useful to man, he is too much his friend, companion, his fellow-laborer, his intelligent friend, for him to be taken from his natural calling and turned into a simple stall-fed animal. It will be probably only by accident or necessity that he can become food for man. But even those necessities are common enough to claim the attention of the public economist.

Whatever may happen I must thank M. Renault for having dissipated a prejudice, silenced a repugnance, and taught me this new fact, that—Horseflesh is good, wholesome and agreeable.

AMEDEE LATOUR.

L'Union Medicale, Dec. 4th, 1855.

EDITORIAL AND MISCELLANEOUS.

OUR NEW VOLUME.

The third year of our editorial existence has dawned upon us, and we are found with our heads sufficiently above water to enable us not only to offer a cordial greeting to our patrons, but to shout long and loud *vivas* to legitimate and progressive medicine. Two years ago we cast ourselves into the troubled sea of editorial life, and although we have at times found it hard to live through the rude billows which have anon rolled over us, still, thanks be to some faithful friends, we have never been so far exhausted as to oblige us to "catch at straws." In the language of our own great Webster, we "*still live*."

With unwavering confidence in the liberality of our professional brethren we venture to assume such additional pecuniary obligations as necessarily attend every effort to make our journal more useful and attractive. Having labored during two long years solely for their benefit, we feel that we are asking but a slight reciprocation of favors when we call on them to rally to the support of "Young Physic" in her struggles to elevate the standard of legitimate medicine. If there are any who

imagine that a New Orleans Medical Journal can "pay" one cent during the first two years of its existence let them be at once undeceived. Our remuneration has heretofore consisted in the applause of our friends, and we are willing very modestly to acknowledge the pleasure we have derived from the same, yet this is but oil to the machinery; with it everything runs merrily and smoothly along—*provided* always, the necessary *motive* power be not withdrawn.

In a few words, all that we have to ask of our patrons is, that each one will forward us the small amount he owes us; send us the name of one more paying subscriber, and furnish us even *one* original communication per annum, and if we do not, in return, furnish the best medical journal in the country, we are willing to abandon the editorial chair. The reciprocal duties of editor and subscriber are plain beyond comparison and yet there are some who either cannot or will not view the thing in its proper light. For instance, there are *some* subscribers who think that the editor can never be in want of their \$3 or \$5 to pay the expense of publishing; it is impossible that so insignificant a sum can be at all important. Yet who doubts (to call it by no harder name) the fallacy of this argument? Again, there are those (and they are largely in the majority) who think, aye, who sometimes almost demand, that a journal shall be well stored with interesting "original" matter, yet never think of contributing a line themselves. What sort of houses do these everlasting stone-throwers live in?

The fact is, the editor and subscriber hold the same relation to each other that the grower and manufacturer of cotton do. One is the producer of the raw material; the other works it up into the various fabrics and returns it thus to the producer. When our cotton crop is large, all the manufacturing mills are in active operation; when it is small, some of the mills are stopped, and those which continue in operation not only return fabrics at higher rates, but of inferior quality. Send us the raw material, then, and we pledge ourselves to please you with the fabric returned.

Henceforth we are determined to adhere rigidly to the system of paying in advance. If our journal is worth anything it is worth \$5 per annum, and it is a far less onerous tax on each subscriber to pay this amount in advance than it is upon us to pay hundreds or thousands. The fact is, the subscriber who pays for his journal in advance derives more pleasure and instruction from perusing its pages. It is impossible that he can properly digest the contents of a number when it is seasoned with the nauseating reflection that he owes for every morsel he takes in.

To those of our subscribers who still owe us for our second volume we send this, hoping very soon to receive pay for both. To these who still owe us for our *first and second*, we are constrained to say, that unless they promptly remit us the amount of their indebtedness, this is the last number we will send them. We shall regret to find any such on our list, but it is altogether unreasonable to suppose that we can *give* away both our labor and our money.

MODERN OBSTRETRICS.—In two of our late exchanges (Nashville Journal of Med. and Surg., and Medical and Surgical Reporter) we notice reports of craniotomy, performed after the head had reached the inferior strait of the pelvis. No one who feels the remotest desire to promote the efficiency and honor of the obstetric art, can read the history of these two cases without recoiling from the narrative. Having never before heard of the operators, we have no private pique to subserve; they themselves have published their acts to the world, and we not only deem it our right, but our duty, as editors of a medical journal, to criticise their acts whensoever they may appear to us not only opposed to modern scientific teachings, but positively tending to the degradation of a noble calling.

The reporter of the case in the *Nashville Journal* presents an instance of a large and well ossified head of a 12½ lb. child, passing readily, and without manual or instrumental assistance, through the superior strait of the pelvis, but becoming arrested at the *inferior* strait. Then he says, "After trying ineffectually for eight hours to deliver the child, and finding the patient rapidly sinking from exhaustion, I proceeded with the consent of the husband and friends, to perforate the cranium, remove the brain and press the cranial bones together, and delivered the child without farther difficulty."

It is a matter of regret that the reporter was not more explicit in his terms, that we may have known positively what he means by "trying ineffectually for eight hours to deliver the child." We can hardly believe that a pelvis which would allow a large and well ossified head to pass through its superior strait without assistance, would offer an insurmountable obstacle to the safe passage of the same through its inferior strait. The reporter does not intimate that there was any malformation of the outlet; he simply speaks of the head being "unusually firm, and so large as entirely to fill the pelvic cavity, and press violently against the perineum;" and yet he does not even hint that he for one moment tried that most efficient and valuable instrument, the forceps. He does

not tell us that rigidity of the soft parts, or a tense chord around the neck of the child arrested the head; nor does he intimate the existence of any complication whatever; hence we infer that the cause of delay was owing to the fact that the bi-parietal diameter of the head was too great for the bis-ischiatric or transverse diameter of the outlet. Is it not more than probable, then, that a good pair of forceps, well adapted to the head as soon as it was found to be really arrested at the inferior strait (not after eight hours of fruitless and exhausting labor), could have so far reduced the bi-parietal diameter as to have permitted the *safe* delivery of the child?

The reporter superscribes his article, "How long shall we wait?" In other words, he wishes to know of the profession how long he should have allowed the head to remain impacted in the pelvis before performing craniotomy. We are surprised that, in this enlightened age, there can still be found the man who, by inditing this interrogatory, evinces his willingness to enslave himself to such an utter absurdity as making his own common sense subservient to a mere empty question of time. How is it possible that any man, or set of men, can fix a number of hours during which the obstetrician must play with his fingers and look on at industrious but incompetent nature? When women and their children become but machines, acting only under the authority of man, and are not endowed with that subtle something called vitality, as necessary to existence; when variations in constitution, idiosyncrasy, &c., are no more to be found amongst them; then, and then only, will we acknowledge the right of any author to say that so many hours or days must intervene between the occurrence of a difficulty in obstetrics and the operation to relieve it. If our reporter is one of those who, many years ago, bartered away their common sense for the bauble book authority on this subject, we are sorry for him; if he is of this progressive age, we would say to him, that a man's common sense is the first thing of which he is legitimately entitled to be jealous.

But, "gentle reader," the worst is to come. In the *Medical and Surgical Reporter* for Jan., 1856, is to be found the recital of a scene in the lying-in chamber, which not only calls forth our deepest hidden indignation, but makes us blush for shame.

The reporter says that the patient had been in labor two nights and a day when he was first called to see her in consultation. "The membranes had not ruptured, but the os uteri was dilated as large as the palm of the hand, and dilatable to any requisite extent; the head was also pretty low down in the pelvis. She was not, however, delivered at

nine o'clock in the evening." So that, notwithstanding the woman had been in labor thirty-six hours, and notwithstanding the head of the child and os uteri were in the highly favorable condition above mentioned, these physicians neglected to rupture the membranes and promote delivery.

At nine o'clock in the evening, however (or forty-eight hours after the commencement of labor), the reporter returns to the case, and finds "that the child's head had made no advance since morning." The pains had now become "very inefficient," and notwithstanding ergot had been administered in divided doses to the extent of "two ounces" of the tincture, "the effect had not been very decided." "The head of the child was firmly impacted in the diagonal position in which it had passed the superior strait; and digital manipulation could not effect the version of the occiput under the arch of the pubes." We are clearly to infer, then, that at the second visit of the reporter, or about forty-eight hours after the accession of labor, the head of the child was down in the cavity of the pelvis, in one of the four oblique positions (it is not stated which), vertex presenting, *and membranes not ruptured.*

But to finish the history of this anomalous case. "*The patient's genitalia were exceedingly tender to the touch; in fact there was great tenderness over the whole abdomen, too much entirely to warrant the application of the forceps* (the italics are not ours). The probability was, that even had I been able to make a successful application of the forceps to the child's head, I could not have effected delivery by them without impairing the integrity of the maternal structures. Delivery of the mother was now clearly indicated; alarming exhaustion was approaching; great prostration of the patient's strength had taken place; her pulse 120 in the minute and irritated. I decided on the use of the crotchet as the only safe resource. I opened the cranium of the child with the perforator, and broke up the cranial structures. I soon effected the delivery of the mother, but not without considerable traction on the child's head."

There certainly is no room for surprise at the result just obtained. Any two men who would allow their patient to fall into the condition in which we find this one forty-eight hours after the accession of labor—they having had such ample opportunities for affording relief—are, of all others, the very individuals whom we would suspect of preferring the perforator to the forceps, for the forcible (?) reason that the "*genitalia were exceedingly tender to the touch,*" and that "*there was great tenderness over the whole abdomen.*" But they could have fortified themselves

still farther with most satisfactory reasoning. We offer them a specimen.

“The reason’s plain, for Charon’s western barge,
Running atilt against the subjunctive mood,
Beckon’d to a porpoise and gave the charge
To fatten padlocks on Antarctic food.”

The reporter of this case has created a series of blunders. 1st. He neglects to rupture the membranes and promote the delivery of the child when he was first called in, and thus neglected his duty to the mother. 2d. If he had then ruptured the membranes he could have remedied the deviation in the position of the head while it was not yet *impacted*, and thus have increased the chances for safety of both mother and child. 3d. Ergot was given freely during some hours, before the membranes were ruptured, and before and after the head had become impacted in a “*diagonal position*,” showing such utter ignorance of the dangers attendant on, and the benefit to be derived from, the exhibition of this remedy, as we could not have imagined to exist at this day. We can hardly believe that those who are such near neighbors of the press whence issued the book called “*Treatise on Obstetrics*,” by Professor Meigs, could have either failed to read, or so soon forgotten chapter xxi, on ergot. 4th. When, at the end of forty-eight hours, the head of the child was found impacted in this diagonal position, “*digital manipulation*” alone was unsuccessfully resorted to for the purpose of effecting rotation of the occiput under the arch of the pubes. The vectis was forgotten. 5th. When the spontaneous delivery of the head was found impracticable, for reasons which are hardly entitled to be dignified with the term insufficient, the forceps are laid aside, or never touched, and the perforator is plunged into the head of the child. In other words, after the accoucheurs had neglected the fairest opportunities of affording both mother and child a safe delivery, and when they became *frightened* at the condition of the mother, they sacrifice a life which, even under existing circumstances, might have been saved.

The management of this case subsequent to delivery merits the severest criticism; but we are sick of it, for the present at least.

VIRGINIA MEDICAL JOURNAL.—Messrs. Ritchie and Dunnivant, of Richmond, Va., through a circular accompanying the Jan. No. of this Journal, claim the entire ownership of both the *Va. Med. & Surg. Journal* and the *Stethoscope*, and have merged the two in one under the title

of "*Virginia Medical Journal*." Drs. S. D. Wilson and R. A. Lewis, late editors of the *Stethoscope* for Ritchie & Dunnivant, have seen proper, however, to edit a journal called "*The Monthly Stethoscope and Medical Reporter*," hence a very fair prospect for a law suit. We know nothing of the merits of the case, but have no doubt that Messrs. Wilson & Lewis have discovered the error of working to support the publisher. What little profits do accrue, after paying the printer, should belong to the poor d—l of a doctor who edits a medical journal.

CÆSARIAN SECTION PERFORMED SUCCESSFULLY TWICE ON THE SAME WOMAN.—*The American Journal of the Medical Sciences* for Jan. 1856 contains an elaborate account of the successful performance of this operation twice on the same individual. This is the second case recorded as having occurred in this country.

We regret to have to say that the first operation on this unfortunate (and still fortunate) woman appears to have been performed without any show of sufficient reason—the pelvis being reported as measuring "full three inches both antero-posterior and transverse diameters; no deformity." The second operation was most strangely complicated, and the happy result is truly wonderful. When the woman was about seven months advanced in pregnancy rupture of the uterus occurred, and the foetus escaped into the cavity of the abdomen. This occurred on the 7th Feb. 1855, and it was not until the ensuing 14th of May that caesarian section was performed. The prompt manner in which the patient recovered after the operation speaks volumes in favor of the application of heroic remedies in the class of cases commonly termed desperate.

PAMPHLETS RECEIVED.

"Second Annual Report of the Legislature of South Carolina relative to the Registration of Births, Deaths and Marriages, for the year ending Dec. 31st, 1854." We are indebted to Dr. R. W. Gibbes, Jr., for this valuable and interesting pamphlet.

"Constitution of the American Medical Society in Paris." For a copy of this pamphlet we are indebted to Dr. J. H. Hinton, New York. As it will afford us great pleasure to contribute our mite to the "American Library at Paris" we forward this number of our journal to Mr. Bossange, Bookseller, No. 138 Pearl street, New York, and promise to forward others as they are issued.

"Ranking's Half-yearly Abstract" and "Braithwaite's Retrospect." We are indebted to our friend, J. C. Morgan, Exchange place, adjoining

the Post Office, for the late numbers of these valuable publications. The numbers are, as usual, replete with most valuable information, and we cannot too highly recommend them to the perusal of our patrons.

LIST OF MORTALITY FOR FOUR WEEKS ENDING FEB. 29, 1856.

	1st week.	2d week.	3d week.	4th week.	Total.
Total number of deaths.....	89	103	84	81	357
Males.....	46	52	43	49	190
Females.....	36	37	36	30	139
Sex not stated.....	7	14	5	2	28
Whites.....	55	70	65	67	257
Blacks.....	26	24	15	10	75
Mullattos.....	7	7	4	4	22
Color not stated.....	1	2	0	0	3
Native Americans.....	17	18	22	19	76
Northern States.....	1	1	5	2	9
Western States.....	3	0	3	16	22
Southern States.....	13	17	14	1	45
Foreigners.....	27	28	25	28	108
English.....	2	1	2	1	6
Irish.....	5	13	14	12	44
French.....	9	2	3	6	20
Germans.....	6	6	4	3	19
Place of birth not stated.....	45	57	37	34	173
Age not stated.....	9	15	10	11	45
Under one month old.....	9	10	8	8	35
From one to five years old.....	21	22	15	13	71
From 5 to 10 years old.....	1	1	5	2	9
From 10 to 20 years old.....	5	0	4	3	12
From 20 to 30 years old.....	11	13	10	13	47
From 30 to 40 years old.....	8	15	11	15	49
From 40 to 50 years old.....	12	8	5	6	31
From 50 to 60 years old.....	8	3	3	1	15
From 60 to 70 years old.....	2	6	4	3	15
From 70 to 80 years old.....	0	5	4	4	13
From 80 to 90 years old.....	1	4	3	1	9
Over 90 years.....	2	1	2	1	6
Other Diseases.....	79	88	72	68	307
Typhoid Fever.....	3	3	4	3	13
Cholera.....	1	0	1	1	3
Intemperance.....	0	0	0	0	0
Accidental.....	0	2	0	0	2
Still-born.....	6	8	7	7	28
Disease not stated.....	0	2	0	2	4

CHARITY HOSPITAL REPORT FOR FEBRUARY, 1856.

Admitted—Males.....	598
“ Females.....	139

— 737

Discharged—Males	-	-	-	-	-	557
“ Females	-	-	-	-	-	148
						— 705
Died—Males	-	-	-	-	-	55
“ Females	-	-	-	-	-	12
						— 67

AGES OF THOSE WHO DIED IN FEBRUARY.

<i>Males.</i>				<i>Females.</i>			
From 20 to 30	-	-	21	From 20 to 30	-	-	4
From 30 to 40	-	-	16	From 30 to 40	-	-	3
From 40 to 50	-	-	12	From 40 to 50	-	-	1
From 50 to 60	-	-	8	From 50 to 60	-	-	2
From 60 to 70	-	-	1	From 70 to 80	-	-	1

REPORT FROM THE OBSTETRICAL WARD.

Males	-	-	-	-	-	-	8
Females	-	-	-	-	-	-	4
Still-born	-	-	-	-	-	-	0
							— 12

The Record of Presentations shows the following:—12 Head Presentations.

TO ADVERTISERS.—We are prepared to accommodate our advertising friends at the following rates, and solicit their patronage:

One page, one year, in advance,	-	-	-	-	-	\$30
One “ “ payable half-yearly,	-	-	-	-	-	\$35
Half “ “ in advance,	-	-	-	-	-	\$20
Half “ “ payable half-yearly,	-	-	-	-	-	\$25
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Every subsequent insertion of one page,	-	-	-	-	-	\$4
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Every subsequent insertion,	-	-	-	-	-	\$3

Advertisers who are strangers to us must enclose the money at above rates with the form of their advertisements.

INDEX.—We beg to call the attention of our readers to the index for the volume just completed, which will be found at the end of this number.

ERRATA IN FEB. No.—Page 532, 11th line from the top, read Typhoid instead of Thypoid. Page 535, 19th line from the top, read scapulæ instead of scapula. Page 539, 11th line from the top, small p in word Physicians. Page 541, 14th line from the top, read percussio instead of purcussion. Page 547, 13th line from the top, read frank, sthenic instead of Frank, Sthenic. Page 557, 4th line from the top, read font instead of fount.

EXCERPTA.

CASE OF REMARKABLE EXTRA-UTERINE CONCEPTION. By *Dr. Armsby*.—The specimen from which the following illustrations were taken, was obtained at a post-mortem examination, held by Dr. Parkhurst, in the presence of about twenty persons, upon the body of Mrs. Anos Eddy, aged 77, of Frankfort, Herkimer county, N. Y. Mrs. Eddy's maiden name was Rebecca Smith. She was born in Frederickstown, Columbia county, N. Y., in the year 1775. Her parents were born in England. Her mother, Sarah Smith, gave birth to twenty-four children, of whom four pair were twins; Rebecca being the twelfth child. Mrs. Eddy was married in New Lebanon, Columbia county, N. Y., in 1795, at the age of twenty, and removed with her husband, Amos Eddy, to Frankfort, Herkimer county, N. Y., where they both lived and died; he at the age of seventy, and she at the age of seventy-seven; she became pregnant in 1802, seven years after her marriage, and died in 1852, carrying the foetus fifty years.

No unusual symptoms attended her pregnancy; her catamenia ceased, quickening was felt at the usual time, and the motions of the child increased and were observed during the usual period of pregnancy. At the expiration of eight and a half months, she had severe labor pains, following a sudden fright from the falling of a vessel into the fire while she was engaged in cooking. Her physician, Dr. Farewell, of Litchfield, was called; the labor pains continued for several hours with regularity and force, but at length subsided, and she remained comfortable for two or three weeks. Her health then began to decline, and the full period of pregnancy having passed by, her friends became extremely anxious, and availed themselves of the advice of Drs. Guiteau, Hull,

Coventry, White, and others. For a considerable time she was confined to her bed, and after a year and a half of extreme suffering, her health began to improve, and was finally restored; during the remainder of her life she had general good health, but suffered occasionally from severe attacks of pain in the abdomen, which resembled labor pains. After her health was restored, her catamenia returned and continued until the age of forty-five. She travelled much about the country, and consulted various medical men, among others, the late Professor Willoughby, of Fairfield Medical College; her health continued remarkably good up to the time of her death, and at the age of seventy-six she was accustomed to walk five miles from her residence to the village and back again.

The specimen with its covering cyst weighed eight pounds at the time of its removal. The external surface of the envelope was smooth and white, composed of concentric layers of fibro-cartilage, varying at different points, from a line or two to three-fourths of an inch in thickness. It had no connections with the abdominal viscera or walls, but was slightly attached to the fallopian tubes and omentum. The external surface of the fœtus was encrusted with earthy substance, of sufficient thickness to preserve its form when dried. The interior seems to be a soft substance, resembling adipocire.—*Trans. Med. Soc., State N. Y.*

HOMŒOPATHIC TREATMENT IN CHOLERA.—The homœopaths have long boasted of their success in the treatment of cholera. The published statistics of their hospitals in Germany and other countries exhibited a rate of mortality highly flattering to the efficacy of “infinitesimals,” and well calculated to attract the attention not only of the public generally, but also of the public authorities. Fortunately for the cause of truth and honesty, and we may add, humanity, the authorities of Marseilles, in the south of France, determined, during the late severe epidemic of cholera in that city, to test fairly and openly the truth of what was so boldly asserted. With this object they placed a ward of the Hotel Dieu at the disposal of the leading homœopathic practitioner of the place, and were doubtless prepared to entrust him with the entire management of the hospital, should the peculiar treatment by inconceivable quantities of remedial substances prove more successful than that adopted by the regular practitioner. Dr. Bouquet, writing to the “Gazette des Hopitaux,” says—“Homœopathy has just received a severe check in our town. You have perhaps heard of the noise it made last year with its pretended success in cholera. Dr. Charge asserted that he had not lost one out of several hundred patients, and he published this statement in the political journals of Lyons and Bordeaux. When, during the present year,

the scourge visited us anew, the authorities bestirred themselves, and thinking it was their duty to bring the truth to light, they entrusted one of the wards in the Hotel Dieu to Dr. Charge. There, assisted by his colleagues in homœopathy, by pharmacians, and by some young people, his adepts, who devoted themselves to attending the patients, (for he had found the ordinary staff insufficient and incompetent,) he obtained the result which might easily have been anticipated; the broad daylight did not display success. *Of 26 cholera patients admitted into this ward 20 died, and M. Charge withdrew.* To render the experiment conclusive a ward had been set apart, in which the patients were treated by rational means, which did not profess to work wonders. *During the same period, of 25 patients admitted but 11 died. Each ward had its turn of reception.* I think that these facts are sufficiently decisive to prevent a renewal of such needless experiments, for if science profits by them, which is doubtful, humanity suffers not a little."

We confess to a strong feeling of affection for our kind. Human suffering ever commands our warmest sympathies. We grieve to see an intractable disease seize the strong and lovely, and, in spite of medical art, hurry them to that country from whose bourne there is no returning. Often have we wished, during the course of the two epidemics of cholera through which we have passed, that some remedy or course of treatment could be discovered whereby the ravages of this fell disease might be stayed. When, therefore, the homœopaths exultingly proclaimed their extraordinary success, we certainly desired that their treatment might be subjected to a fair, impartial trial. This it has now received, and its signal failure will tend to throw discredit on all statements hereafter made by the globulists as to their success in the treatment of epidemic diseases.—*Montreal Med. Chronicle.*

CURIOUS CASE OF UNITED TWINS. By *W. Marsden, M.D.*, Governor College Physicians and Surgeons, Lower Canada.—The subjects of the following paper, "Christina and Milley," are natives of Africa, and, as nearly as can be gathered from their unconnected history, will be six years old in September next. When only one year of age they were dragged away by the slave-dealer, together with both their parents and three brothers and two sisters, and sold. Dr. MacGinlay, of North Carolina, who was travelling in the Island of Cuba in search of health, purchased them as natural curiosities, which they truly are, and removed them to the United States of America. His death, which took place the following year, deprived them of a kind friend and master, when they were sold with the other goods and effects of his estate.

The purchaser, who paid £100 for them, with the design of exhibition, removed them to Philadelphia; and Pennsylvania being a "free State," and the little negroes not "runaway slaves," the Government, by a judgment of the court, declared them free, and appointed Messrs. Miller and Thomson as their guardians. By an arrangement with the law authorities, Professor Miller is to pay annually to the State, for five years to come, a certain sum of money, out of the profits of their exhibition, which is to be applied to the purchase of the freedom of their parents and family, to whom they will be reunited when manumitted. Whether considered as anatomical and physiological or pathological subjects they are intensely interesting in their character. Their osseous union or fusion is confined to the sacrum and coccyx, which can be distinctly traced on handling. There is a common anus, from which they invariably feel the desire to relieve nature simultaneously. The vagina is imperforate; or, more properly speaking, there is no vaginal aperture or cavity. The vulva or labia majora are very small, and the nymphæ and clitoris are wanting; but in their stead, are in each child between the mons veneris and meatus urinarius, a few small granular bodies. The urethræ terminate close to each other, having merely a thin membranous septum between them, which is so indistinct *in situ* as to look like a common meatus urinarius; but when dilated they are distinctly visible. The bladders and urethræ are quite distinct and separate, and the act of micturition is performed by each child separately and at will. So perfect and distinct is the separation that sensation is not evinced by one child when the catheter is introduced into the urethra of the other, although they are in immediate contact, and *vice versa*; yet each one shrinks from its introduction in its own case. The circulation is evidently distinct and double, as the pulsation is not always synchronous.

The union is not directly back to back, as the left dorsum of the ilium of Milley, the smaller child, is in proximity with the right corresponding portion of bone in Christina, the larger but least active child, and the left posterior spinous process of the ilium of the same child is in juxtaposition with the right corresponding portion of the other, but not united. Thus, although progression is easy forwards and backwards—*i. e.*, the one walking backwards as the other walks forwards, (and Milley, being the most active child, usually leads when walking in that way)—they can both walk with great ease forwards, or side by side, (Milley being always on the right of her sister.) This is also the posture in which they invariably lie and sleep; on which account their heads have attained a peculiar angular shape, (like a child nursed on one

breast,) the apex or projection in Milley being on the left and in Christina the right side of the *os frontis*, both heads being flattened behind. There is also considerable lateral curvature of the spine to the left side in Milley, in consequence of her constant efforts to lead her more passive but heavier and stronger companion. This case of diplogenesis is evidently inseparable, and although they may not die at the same moment of time, as did the Hungarian sisters, within three minutes of each other, yet the death of the one must necessarily involve the destruction of the other within a comparatively short period.—*Montreal Chronicle of Medicine.*

FOREIGN CORRESPONDENCE.—Berlin, Sept. 1, 1855. Messrs. Editors: To one who is pleased with exhibitions of stirring surgical skill, a visit to the private hospital of Dr. Graefe is full of interest. Dr. Graefe is without doubt the most promising physician in Europe, although his reputation is not so widely extended as that of a few older men. Although but twenty-eight years of age, I suppose that he has not his superior as an oculist, and perhaps not his equal. He is consulted by numbers from all parts of the continent, and private students come from every division of the world to view his skill and to receive instruction from him. Here are physicians from Russia, Greece, Denmark, Norway, Brazil, and the United States. I have had many opportunities to see him, at his house and at his hospital, and have always found from ten to fifty patients waiting. The instrument with which his name has often been associated as the inventor (the ophthalmoscope), although he disclaims the honor, and the books which he publishes annually, containing elaborate articles on ophthalmic science, have attracted the attention of physicians to him, while the sad fate of his father, who died from chagrin at being unable to operate successfully on the eyes of the King of Hanover, has enlisted in the reputation of the son, the feelings of those who are not influenced by professional sympathy. But his manner is so peculiar that I must describe it somewhat fully. Before being introduced to him, I was accustomed to attend his public clinic, in order to see the numerous interesting cases there presented for treatment or operation. The room was crowded with patients, seated on desks like those of a school, in order to accommodate a number. There must have been a hundred present. At the moment appointed for the commencement of the clinic, the door opened, and a lightly-built man, of genteel form and moderate height, entered. All rose, and he hurried across the room into his operating apartment, seated himself in his chair, and had commenced the investigation of a case, in

less time than I have spent in noticing his entrance. All around were his students. Four or five assistants were seated by his table, recording his prescriptions, handing instruments, arranging his glasses, or writing his orders to opticians. Not a quarter of a minute elapsed between the several cases, and yet in his private clinic I have known him to spend an hour in speaking of some interesting anomaly in the physiology of the eye. He is the most active man I have ever seen; he seems but nerve and brain; when he speaks, it is with such rapidity that Germans can hardly understand him, and it makes but little difference whether his conversation is in German, French, or English. The quickness with which he performs the most delicate operations upon the eye is startling to one who is not full of confidence, and yet his success is unsurpassed.

The excessive nervousness which Dr. Graefe exhibits is not that of a man who cannot control himself; for in the midst of strange confusion he never is disturbed. Indeed he brought up more vividly than any man I have ever seen that old picture of Julius Cæsar writing a letter with his own hand, and at the same time dictating a dispatch to his secretary, and listening to the story of a bystander. With three or four children crying at once, nurses singing, and mothers caressing, Dr. Graefe is able to do what few physicians have the courage to attempt, even under the most favorable circumstances. I can give the best notion of the amount of his practice, when I say, that during one semester of the university (about four months) he operated eighty times for artificial pupil. Cases of this sort are rare, and your readers will appreciate how extensive and interesting his entire practice must be.

I must not drop my picture of this eminent man, without mentioning one other trait in his character. Though left in the most affluent circumstances, and enjoying an unlimited practice, the love he bears to his specialty is his great stimulant to action. His health is already fast sinking under his incessant studies and toil, and a few years more will probably terminate his illustrious career.

Dr. Graefe's hospital is capable of accommodating about one hundred patients, and almost every spare room in the immediate vicinity is filled by them. He has usually about eight assistant physicians. His public clinic is opened daily to all classes of the community, and he receives a compensation from the government for his services to the poor. His liberality and kindness are in the mouths of all, and the poorest laborer can have the advantage of his advice. Besides his public lectures delivered at the University upon the diseases of the eye, he gives, in con-

junction with his assistants, a private course upon the physiology of vision, another upon the use of the ophthalmoscope, one upon the microscopic characters of the tissues comprising the organ of sight, a private course of clinical lectures, a public clinic for the higher classes, and visits private patients among the nobility.

His pen is also never idle. He has assumed the labor of editing the *Yearly Annals of Ophthalmic Science*, and a noble work it is.

He is continually improving the character and variety of instruments used in surgical operations upon the eye, and his instrument maker always attends his clinics, in order to gain hints by observation.

Altogether, the reputation which Berlin enjoys, as the best school for the class of diseases of which I have been speaking, is owing as much to the labors of this accomplished and assiduous physician, as to the almost numberless infirmaries scattered through the city.—*American Medical Monthly*.

NEW WAY OF MAKING OLEUM MORRHUÆ CUM QUINA. By K. C., a member of the Pharmaceutical Association.—Gentlemen: I beg to leave to make known through your valuable magazine, a method of preparing cod liver oil with quinine, so simple and efficacious, that I am confident it will supersede any other process at present in use.

This new and elegant preparation may be easily made without impairing, in the least degree, either the color, odor, translucency, or efficacy of the oil, by dissolving the *pure dry* quina in a very small portion of oil of almonds (about 8 grs. of quina to 2 drms. of the oil), with the aid of heat, and then mixing the solution with the desired quantity of oleum Jecoris Aselli. The advantages of this plan are so self-evident that I will take up no more of your valuable space.

[We have tried the above simple method, and have found it answer admirably. The preparation is made in a few minutes: we found the ordinary disulphate of quinia answer just as well as the quinia itself.—*Editors Montreal Medical Chronicle*.]

HEALTH AMONG THE QUAKERS.—It is stated in the *Friends' Intelligencer*, that from statistics recently published in England, while the average duration of human life is estimated at thirty-three years, that among the Friends is an average of fifty-one years. Eighteen years thus added to the average of human life is a fact too remarkable not to challenge medical attention, and lead us to a close investigation of the laws of life.

CASE OF TRIPLETS, WITH AN UNUSUAL SHORTENING OF ONE OF THE CORDS. By J. Levergood, M.D., Wrightsville, Pa.—On Monday, Dec.

24th, 1855, I was called to attend Mrs. H., æt. thirty-five, in labor with her fifth child. On an examination per vaginam, the membranes were found ruptured, os uteri fully dilated, and head presenting, and in thirty minutes after my arrival she was delivered of a full-grown healthy child. Upon attempting to apply the usual ligatures to the funis umbilicalis, I found the child so firmly drawn against the mother as to render the application of but one ligature feasible, for the cord was stretched to its utmost capacity, and any endeavor to move the child, for the purpose of applying a second ligature to the cord, would have certainly terminated in its rupture. There being indubitable evidence of the existence of another child in utero, I made an examination to ascertain the nature of the presentation—which was of the breech—when I found, drawn completely into the uterus, the severed cord. After a few expulsive pains, the second child was born; having properly disposed of the two children, and the abdomen being greatly diminished in size, we awaited patiently for the expulsion of the placenta or placentæ, as the case might be, but it not taking place as soon as was desirable, I introduced my hand with the view of extracting it when, *mirabile dictu*, I discovered a third child, head presenting. In a short time it (being still-born) and two placentæ were expelled together. I then turned my attention to the peculiarity which has occasioned this communication, viz., the exceeding shortness of the umbilical cord belonging to the first child, and found its length to be but *four and a half inches*, including the portion attached to the child.

The above case is, I conceive, an interesting one, in view of the fact that there are upon record but very few well authenticated cases, in which the umbilical cords were as short as in this one. That this unusual shortness of the funis is of very rare occurrence authors and practical experience abundantly confirm. Churchill, in his admirable treatise on midwifery, states that “the cord varies much; it is *very rarely* less than eight inches, though such cases are on record.” Blundell cites a case “in which the cord’s length, on measurement, was found not to exceed seven inches.” Cazeaux relates a case of a woman whom he delivered with the forceps, “where the cord was only nine inches,” and, in a foot note to Churchill’s work, we find that the editor, Dr. Huston, calls attention to cases in which the cords were six inches and less in length.

This is the second case of triplets that has happened in this place within the last four years; the first occurred in the practice of my friend, Dr. B. C. Lloyd.

DETACHMENT OF PLACENTA BY INJECTION OF FUNIS.—It is well to review occasionally the facts on which recommendations of unusual remedial means are based. With this purpose we may glance at the testimony in favor of injecting the funis in cases of retained placenta, a proceeding referred to in connection with the case of Dr. George Minor, in the fifth volume of the *Virginia Medical and Surgical Journal*, p. 298.

This method was first suggested we believe by Dr. Mojon, a Genoese physician, in the *Repertorio di Medic.* of Turin for May, 1826. He employed cold water acidulated with vinegar, which was forcibly injected by the umbilical vein.

In the *Annali Universali di Medicina* for 1827, Dr. Tartoni, of Milan, relates a case in which he successfully adopted this practice.

Dr. Hopkins states, in the *London Med. and Phys. Journal* for 1827, that he has twice resorted to this plan with the best results. Two hours had elapsed in each case after the birth of the child; pressure, cold, and other means had been unsuccessfully employed. In three minutes after eight ounces of cold water had been injected by a common syringe, uterine contractions came on, and the after birth was forced into the vagina.

Dr. Jemina reports, in the *Repertorio di Medicina*, Aug. 1828, three cases of uterine hæmorrhage resulting from partial attachment of the placenta, in which its detachment was effected by cold acidulated injections through the umbilical vein.

Dr. Doucet, of New York, publishes a case in which he adopted this treatment with success in the *N. Y. Med. and Phys. Journal*, Dec. 1828.

Duparque records two cases in which this means was employed with success in the *Nouvelle Bibliotheque Medicale* for April, 1828.

In *Rust's Magazine* for 1828, a case is related by Dr. Hoffman, in which there was *adherent* placenta and internal hæmorrhage. The injection of some *warm* water and spirits by the funis was followed in one minute by the expulsion of the placenta.

In July, 1829, the *Annali Universali* of Milan contains another case in which this plan was resorted to with success by Dr. Chisea.

Adding to these, cases reported by Lemaistre, Liegard and Sandras, we have fifteen cases in favor of this practice from highly respectable sources; and although it is not *proved* that the placenta was adherent in all these cases, such a body of testimony should certainly lead us to employ this simple remedy in cases of supposed adhesion with flooding, after using the ordinary resources without success.

M BROWN-SEQUARD'S DISCOVERIES OF THE FUNCTIONS OF THE

SPINAL MARROW.—Seldom has the scientific world been taken more by surprise than when M. Brown-Sequard announced his recent discoveries relative to the functions of the spinal marrow. Whatever may be wanting to complete our knowledge of the action of this portion of the nervous system, the brilliant investigations of Sir Charles Bell seemed to set at rest forever the question as to the particular fibres which communicate motion to the muscles and sensation to the brain. The theory of Bell, in a few words, is as follows: "The spinal cord has two functions, relative to the two substances of which it is composed. It serves as an independent organ, detached from the brain, for the performance of reflex actions, a property which it owes to the grey matter contained in its centre. By the white substance it acts as a medium of communication between the brain and the parts to which the nerves are distributed, the posterior columns conveying sensation *upwards*, and the anterior and lateral columns transmitting the power of motion in a *downward* direction." This theory was less the result of experiments upon living animals, than of a process of reasoning, Sir Charles having always manifested a strong repugnance to vivisections. M. Longet, however, demonstrated, by the application of galvanism to sections of the spinal marrow of animals, that irritation of the posterior columns caused no movement, while that of the anterior columns occasioned no pain. On the contrary, the galvanic current caused extreme pain when applied to the posterior columns above the transverse section of the medulla, and excited movements when directed through the anterior columns of the lower segment. The grey matter was found to be insensible to the irritation of electricity. The theory of Bell, so remarkable for its simplicity and apparently so perfectly supported by the demonstrations of one of the most eminent experimental physiologists, could not fail of universal adoption, and although pathological facts were occasionally made known which appeared to contradict, to some extent, its conclusions, it seemed natural to believe that these were inaccurately reported.

It will be observed, that in the experiments of M. Longet, the spinal cord was always completely cut across. We may not unreasonably ask whether the organ thus divided is in the same condition for transmitting sensation and the power of motion, as when its continuity is in a great part preserved, and why this method of experimenting was employed, instead of cutting through each portion in succession, and observing the effect produced upon the function attributed to that part? In reply to the latter inquiry, M. Longet states that the operation of laying bare the spinal marrow, and evacuating the fluid which is contained in the

cavity of the arachnoid, is always followed by paralysis, both of sensation and motion, of the posterior extremities, thereby rendering further investigation impossible. Here was the great obstacle to researches in the functions of the spinal cord, and the removal of this obstacle was the first step taken by M. Brown-Sequard. He ascertained that the nervous disturbance following the opening of the spinal canal was caused by the loss of blood and by the pain and shock consequent upon the operation. By operating in such a manner as to prevent a great flow of blood, and by allowing the animal time to recover from the depressing effects of the operation, he found that both sensation and motion returned to the posterior extremities in almost, if not quite, their original degree.

Thus enabled to experiment upon the cord in a normal state (as far as its functions were concerned), he proceeded to isolate various portions of the different columns by sections made with extreme care, and demonstrated a series of laws relative to the spinal functions, the principal of which are the following :

1. The posterior columns may be divided without destruction either of sensation or motion.

2. Sensation and motion are destroyed when the grey substance is cut across.

3. Integrity of the antero-lateral columns does not interfere with the loss of motion, nor does integrity of the posterior columns prevent loss of sensation.

4. Division of the posterior fibres of the cord, so far from abolishing sensation in the parts to which these fibres are distributed, appears, on the contrary, greatly to increase it.

5. When the posterior columns are divided, sensation continues to be transmitted between the lower portion and the grey substance, which transmits the impression to the sensorium by means of fibres descending from the upper portion, and joining obliquely the grey substance below the point where the section is made.

Our limits forbid us to detail the experiments upon which the above conclusions are founded. They have been repeated over and over again with the same results, in the presence of a committee appointed by the *Societe de Biologie*, consisting of MM. Claude Bernard, Bouley, Broca, Giraldes, Goubaux and Vulpian, to whom was referred M. Brown-Sequard's memoir, and who were entirely satisfied with his conclusions. The interesting report which they made to the Society is the most convincing evidence of M. Brown-Sequard's skill as an experimenter and his eminence as a physiologist.—*Boston Surg. and Med. Journal.*

OPENING OF THE SESSION OF THE ACADEMY OF MEDICINE OF PARIS

—This learned Society opened the session on the 11th instant with the usual ceremonial—viz: 1. A report by the annual secretary respecting the prizes; 2. The public announcement of the latter; 3. The panegyric of some deceased member of the Society, being this year that of Re-camier, by the permanent secretary, M. Frederick Dubois. Amongst the prizes we may notice the following: Medals of various value were granted to a considerable number of medical men all over the country, for Reports on, and the Practice of, Vaccination; also, to a great number of physicians, officially appointed in watering-places, for Reports and Papers on the Mineral Springs of the different parts of France. The most prominent isolated prizes are—1. The Prize offered by the Academy, M. Julius Rochard, of Brest, Influence of Change of Air on Tubercular Formations in the Lungs; 2. Civrieux Prize, divided between M. Sabourand and M. Puel, on Catalepsy; 3. Capuron Prize, divided between M. Petrequin and M. Socquet, on the Physiological and Therapeutical Action of Alkaline Mineral Waters; 4. Itard Prize, M. Vidal (de Cassis) for his work on Venereal Diseases. The latter prize is triennial, and is, this year, worth \$700. The others are \$200 each. The Portal Prize on “Goitre and Cretins” was *not awarded*, but small sums were, by way of encouragement, granted to M. Bach, M. Moreton, and M. Le Tertre Vallier. The Capuron Prize (on Sudden Death in the Puerperal State) was *not given at all*, and stands over for next year.

We now add the subjects offered for competition for 1856, 1857, and 1858—The Academy Prize, \$200: Give the History of the Applications of the Microscope to Morbid Anatomy, also to the Diagnosis and Treatment of Diseases; point out of what use this instrument has been in medicine, how it can be rendered further useful, and show how the errors to which it may give rise may be guarded against.

2. Portal Prize, \$200: On the Morbid Anatomy of Cysts. 3. Civrieux Prize, \$400: To establish by actual facts the difference between Neuralgia and Neuritis. 4. The Capuron Prize, \$200: On bloodletting in pregnancy. 5. The Argenteuil Prize, \$2,400, given every sixth year (1850—1856), to be awarded to the author of the most noted Improvement in the Treatment of Stricture of the Urethra; or else to the author of such improvement in other diseases of the urinary apparatus.

For 1857,—1. Academy Prize, \$200: On the Degree of Utility of Issues and Setons in Chronic Diseases. 2. Portal Prize, \$200: Describe the Organic Changes caused by Rheumatism, and show how these changes may be distinguished from alterations depending on other

Causes. 3. Civrieux Prize, 8300 : On Nervous Vertigo ; establish the diagnosis of the disease and point out how it can be distinguished from vertigo depending on plethora, anæmia, or an organic cerebral lesion ; and state which treatment should be used in nervous vertigo. 4. Capuron Prize, \$200 : the same as last year (on Sudden Death during Gestation). The Academy wishes competitors to understand that sudden deaths have occurred with pregnant women either during or after parturition, and that these cases could not be explained by the ordinary causes of sudden deaths. The Academy had those cases in view when the question was last proposed, and it is with respect to these that the question should be answered. 5. Second Academical Prize, \$200 : Give the Characters of Saline Mineral Waters, Point out the Springs belonging to this Class ; Ascertain by Cases their Physiological and Therapeutical Effects, and state in which Chronic Diseases they may be advantageously employed. 6. Lefevre Prize, \$360 (triennial) : On Melancholis.

1858—Itard Prize, \$600 (triennial) : To the best book (of at least two years' existence) on Practical Medicine—viz : on Actual Therapeutical Applications.

The papers for 1856 should be sent in before the 1st of March of the same year.—*Medical News and Library.*

EXFOLIATION OF THE MUCOUS MEMBRANE OF THE UTERUS.—By *Dr. Tyler Smith.*—Cases of what are styled “membranous menstruation,” with the excessive pain attending this affection, are not uncommon in general practice, yet it is only lately that they have come to be properly understood. The older pathologists, as Baillie and Wm. Hunter, believed dysmenorrhœa to depend on an inflammatory condition of the uterus at the period of menstruation, and that even in the virgin uterus an organized substance, resembling the decidua, was formed by the lining membrane, and thrown off, when a small organized mass, the shape of the cavity of the uterus, was passed. Whether in the married or unmarried condition, it was known in common language as a “mole.”

Dysmenorrhœa sometimes takes place from the very commencement of menstrual life, and there is good reason for believing that it depends on the small size or strictured condition of the os uteri. The menstrual fluid, after it is formed, or while forming, cannot readily escape ; distension of the organ speedily follows, which, by exciting the contraction of the uterine fibres, produces pain almost simulating that of labor. Even the action of the abdominal muscles is called into play, and many cases of what are termed “spurious pregnancy” may be very possibly explained in this manner. It is believed, too, that women thus affected

rarely, if ever, conceive or bear children, the normal healthy function of the uterus being interfered with, as well as the woman's health reduced by the constant suffering and pain. Of all the means of cure hitherto tried, dilatation of the canal of the cervix uteri seems to be the best, to which more recently has been added the introduction of a silver canula, as tried by Dr. Tyler Smith.

When in 1846 Professor Simpson, of Edinburgh, announced that the membrane expelled in certain cases of dysmenorrhœa was not simply a fibrinous or inflammatory exudation, the result of some change in this organ, but consisted rather of "exfoliation or detachment of the mucous membrane of the uterus itself," the obstetric world, according to Dr. Tyler Smith, as he explained to his class, was somewhat startled from its propriety, and ever since that time, when the matter has been referred to, it has generally been with strong expressions of doubt and incredulity. Obstetric practice has been hitherto rather undeservedly under a cloud in London, and few opportunities have been afforded to test the matter. We are not aware that any researches bearing directly upon Dr. Simpson's discovery have been published in London, so that the following case, abridged from the notes taken in St. Mary's, may be instructive.

M. D—, aged thirty-two, twice married, but without children, was admitted April 20th, suffering from dysmenorrhœa and the discharge of membranous matter at each monthly period. The history of the case, as taken by Dr. Vernon, was as follows:—She was first married at the age of sixteen, and before this time had menstruated healthily. After marriage she began to suffer from menorrhagia, which she supposed to have been caused by excessive intercourse. This went on, and ended in membranous menstruation, accompanied by sanguineous discharge. She continued to suffer in this way during the lifetime of her first husband; but seven years after her marriage she became a widow. She now slowly recovered her health, menstruation becoming less painful, and the dysmenorrhœal membrane disappeared altogether. She remained unmarried for several years, but married a second time about two years ago. Six months after this marriage she began to suffer pain again during the menstrual periods, and the characteristic shreds reappeared in the discharge. She now for the first time had internal hemorrhoids, with fissure of the rectum; blood was occasionally passed by stool; and defecation, except under the influence of laxatives, caused great pain; micturition was also painful. In the intervals of menstruation she complained of leucorrhœa, the discharge being sometimes of a

brownish color. Occasionally severe pruritis was present. She had been a patient at several public institutions without obtaining material relief.

At the end of last year, when she first became an out-patient at St-Mary's Hospital, her health was a good deal broken by menstrual losses, the dysmenorrhœal pain, and the leucorrhœal discharge. At this time the membranous matter came away in flakes of considerable size, the largest flakes generally passing on the first days of menstruation. The greatest pain was suffered on the first day of the discharge, and the two or three days preceding its appearance. On examination, the uterus was of the natural size, and the only thing to be remarked was a very contracted state of the os uteri, scarcely admitting the end of a probe into the canal of the cervix. Various remedies were used with the effect of moderating the leucorrhœal discharge and improving the general health. The os uteri was on several occasions dilated mechanically, but it was soon found to return to its former state of contraction. On one occasion Dr. Smith introduced into the cervix uteri a small silver canula about three quarters of an inch long, with a view to its remaining in the canal during a catamenial period. She menstruated while wearing this instrument, the discharge coming away freely in a granular instead of a membranous form, and she suffered much less pain than usual. She herself stated that she had not been so free from pain at any month since the time the disorder reappeared after her second marriage. Some days after menstruation had ceased, this canula was taken out, and at the next two or three monthly periods the pain and membranous discharge returned as before. Dr. Tyler Smith now admitted her into the hospital, with the view of watching the case more closely, and ascertaining, if possible, the exact nature of the discharge. Shortly after admission menstruation took place, and the membranous flakes were carefully collected and examined with a lens and by the aid of the microscope. The largest membranous flakes exceeded the size of a shilling, and were about the eighth of an inch in thickness. When examined in water, they presented on one side a smooth surface, and on the other side the surface was flocculent and irregular. A vertical section showed the membrane to consist of a fibroid layer, in which was imbedded an abundant cell-formation, made up of multitudinous nuclei and celloid particles. From the free or smooth surface, numerous villi projected, while from the flocculent surface, long tubular glands could be seen passing downwards. These glands had a basement membrane, surrounded by an outer thin coating of nuclei and the fibroid tissue, and were lined with epithelium.

The tubes of the glands were full of cylinder epithelium, nuclei, and granular matter. The tubular glands could be seen with the naked eye, and, with the villi of the surface, were characteristic of uterine mucous membrane. There appeared to be no doubt that the membranous flakes were the mucous membrane of the fundus uteri, cast off *in toto*.

This case, then, strongly supports the pathological views of Dr. Simpson. An intelligent young German physician, Dr. Spiegelberg, of Göttingen, who saw this case with Dr. Smith, informed us that the celebrated Virchow, of Wurzburg, and Professor Heschl, of Olmutz, formerly senior assistant to Rokitansky at Vienna, had examined these exfoliations, and found them also to consist of detached mucous membrane.

On the approach of the next monthly period, after this examination of the membranous formation, the silver canula was again introduced, with the effect of diminishing the pain as before, and the discharge also contained much less flaky matter. The tube was allowed to remain *in situ*, and a second period has since been passed with marked diminution of pain, and alteration in the character of the discharge.

We have given an account of the present case because of its intrinsic interest, and to note the relief afforded by keeping the os uteri open with the canula. It remains to be seen how far the benefit derived in this way will proceed, but the use of such a means is certainly rational in a form of disease which obstinately resists ordinary modes of treatment. In other cases of membranous menstruation treated at St Mary's, Dr. Smith has tried local abstraction of blood, counter irritation, mild mercurialization, iodism, tartar emetic (given at the periods so as to keep up constant nausea), opiates, preparations of steel, cubebs, &c., &c., without arriving at any certain means of checking this troublesome disease. We ought not to omit to mention, that in the case now under comment, full doses of camphor and lupulin had been given with a view to their anti-aphrodisiac effects.—*Lancet*, June 16, 1855, p. 608.

CHRONIC ENTROPIUM.—Mr. William Butten reports, in a late number of the *Lancet*, two obstinate cases of entropium, both of which had resisted a great variety of treatment, but which were cured by the application of collodion to the skin of the eyelid, previously corrugated by the thumb and finger. Several layers are successively applied and allowed to dry before the fingers are removed. The application is made at first every other day, and afterwards at longer intervals.—*Virginia Medical Journal*.

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NO. II

LECTURES ON EXPERIMENTAL PHYSIOLOGY.

DELIVERED AT THE COLLEGE DE FRANCE, PARIS, DURING THE YEAR 1855.

By Professor CLAUDE BERNARD.

From notes taken at the Lectures by ANTHONY PENISTON, M.D., of New Orleans.

Having considered in the last lecture the effect of total abstinence on the production of sugar in the liver, we must now see what would be the influence exercised by different kinds of food on this secretion. All the innumerable substances which are used as food must consist of one or more of the following elements, viz. :

Grease.

Fecula, or starch.

Albumen.

If a dog be fed exclusively on grease, we find that the proportion of sugar in the liver diminishes considerably. We fed two of these animals on melted lard, and then sacrificed them, when we obtained the following result :—In one case the liver only contained one half per cent. of sugar, and in the other three-quarters per cent. Thus we ascertain the singular fact, that though grease be perfectly absorbed and digested it does not at all contribute to the production of sugar. The reason of this is, that while the ordinary products of digestion are absorbed by the vena porta, grease, on the contrary, is only taken up by the chyloferous or lymphatic vessels, which empty themselves into the thoracic duct, and thence into the general circulation. The structure of the liver is such that the globules of grease cannot pass through into the vena cava, and when we inject melted lard into the portal vein we find it clogging

up the different ramifications of that vessel without penetrating into the substance of the gland.

Albuminous or azotized food.

We find on feeding an animal on pure gelatine that the secretion of sugar continues in the normal way, and the same result is obtained when flesh is given as the sole article of diet. This proves that sugar is produced exclusively from the azotized elements of the blood. Analysis shows that the blood which enters the liver contains more fibrine than that of the hepatic vein, and we may conclude that the latter element is transformed into sugar.

Starch, or fecula.

If a dog be killed, after having been fed exclusively on amylaceous substances, we shall find that the intestines contain sugar, the starch being thus transformed by the action of the pancreatic juice, and yet we do not find in the liver of an animal thus fed a larger proportion of sugar than is produced by other kinds of food. The result of the experiments on two dogs was, that the liver in one case contained $1\frac{1}{2}$ per cent., in the other 1 8-10ths per cent. of sugar.

But in a great many cases sugar itself becomes an article of food.

When cane sugar is taken into the stomach it is transformed into grape sugar by the acids contained in the gastric juice; it then acquires the property of fermenting, and is absorbed, which could not be the case in its former state. When diabetic patients take any amount of sugar in their food, the consequence is, that a greater quantity appears in the urine, whereas in a physiological state this would not happen.

We find, on analyzing the blood of carnivorous and herbivorous animals, that the elementary composition is the same in both cases, though the nature of the food be essentially different. It would seem to be a law of animal life that blood must ever be identical with itself, presenting that unity of character which is indispensable to all vital phenomena. One of the causes of diabetes is, that the assimilating power is in some way disordered, and nutrition consequently impaired.

We have now to consider what transformation the sugar which is taken as an article of food must undergo. That it is absorbed there can be no doubt, and then it must take its course towards the liver. Sugar being thus introduced directly into the system, two questions naturally present themselves for our consideration, viz.: Does the sugar go through the liver unchanged, and in that case, does it supersede the necessity of any sugar being produced by the liver? In other words,

when the system is supplied with sugar from an external source does this peculiar function of the liver remain dormant, to be revived again when the quantity becomes insufficient. To this we can answer at once, and our experiments will prove that this function of the liver is entirely independent of the nature of the food. Sugar introduced into the intestinal tube is destroyed in the liver and transformed into grease; so that here we have a new function, heretofore unknown as belonging to the liver, that of converting all the saccharine products of digestion into fat. The sugar which is found in the hepatic veins is produced from other elements, as we have already explained.

We say, that in a physiological state, when sugar is absorbed in the intestine it does not go beyond the liver, no traces of it being found in the general circulation. The following experiment will demonstrate this fact.

Take two rabbits, and by means of a syringe and a gum elastic catheter, inject into the stomach of one of these animals a solution of glucose, containing a small proportion of prussiate of potash. Take the second rabbit, pinch up the skin on the back, make a small puncture through the skin with a trocar, and then inject into the loose cellular tissue beneath the same solution of sugar and prussiate of potash. In both cases the liquid is absorbed, but with a different result. In the latter the sugar will go to the heart immediately, without passing through the liver; whereas, in the former case, the liquid being introduced into the stomach will be carried to the liver by the portal circulation. The consequence will be, that in the latter experiment sugar going through the liver is there destroyed; whereas, in the other case, being taken up by the general circulation, we find evident traces of it in the urine: in both cases, however, the liver exercising no action on the prussiate of potash, it goes through unchanged, and is eliminated by the kidneys, its presence in the urine being easily detected by the addition of a solution of peroxide of iron, the beautiful color known as Prussian blue being immediately produced.

The property possessed by the liver of transforming amylaceous substances and glucose into fat explains very satisfactorily why the different varieties of grain possess such highly nutritious properties, containing, as they do, a large proportion of starch and sugar; on the contrary, grease, though absorbed, is not so profitable an article of food.

If we bleed an animal fed on starch we shall find that the blood contains a large proportion of chyle; so much so, indeed, that during digestion the veins seem to contain a milky fluid.

There is a peculiar disease sometimes observed in very warm climates, called chylous urine. This disease, of which little is as yet known, may be occasioned by some derangement in the functions of the liver. Diabetic patients being generally very thin and emaciated, it is rational to suppose that the property, belonging to the liver of transforming the different saccharine products of digestion into fat may be disordered, so that nutrition would be inadequate to supply the wants of the system.

The blood of the vena porta must necessarily go through the liver before it reaches the hepatic vein, and yet a certain quantity comes out without undergoing any change. Thus there are in the liver two circulations; one which we call the chemical circulation, because the blood coming in contact with the intimate structure of the lobules is so acted upon that sugar, bile and fat are produced; another portion of the blood goes through chemically unchanged, and this is called the collateral circulation. The anatomical structure of the liver explains this fact. We have already said that the liver is composed of a mass of cells, which accumulated together form a lobule; the radicles of the vena porta ramify on the circumference of each lobule, so that the blood must penetrate through these cells before it reaches the hepatic vein, the radicles of which take their origin from the centre of the lobule; but besides this structural arrangement, we find in some parts of the liver a direct anastomosis between the vena porta and the hepatic vein, and by this means a portion of the blood escapes without being acted upon by the liver. This collateral circulation has been found to be most developed in animals calculated for very swift running, as the horse, deer, &c. The reason is obvious; for in consequence of the violent and long continued muscular efforts, were it not for this kind of safety-valve, the liver and spleen would become speedily engorged, and the whole circulation be arrested. From this mechanical circulation, it results that a small proportion of albuminoid matter may pass through the liver without undergoing any change, but in a physiological state this proportion is so small that it cannot be traced in the urine.

The presence of sugar in the urine is not, under all circumstances, characteristic of diabetes, for it may happen to persons in perfect health. Thus if we eat large quantities of sugar while the stomach is perfectly empty, absorption will take place so rapidly that a small quantity may appear in the urine.

When a herbivorous animal has been fasting for twenty-four hours its urine is found to be acid, but during digestion it becomes alkaline. The quality of the food is thus seen to influence the nature of this secretion;

so that if we were to eat a large quantity of fruit our urine would be alkaline, whereas animal food renders it acid; so that it generally presents the latter reaction, the contrary being the exception.

In the same way, if after fasting we were to take into our stomach a large quantity of albumen, eating, for instance, several raw eggs, the consequence would be, that we should find albumen in our urine. The appearance of the liver itself is considerably modified by the nature of the food. Thus during digestion the hepatic cells are distended and swollen, whereas during abstinence they assume a polygonal shape, in which they are commonly represented. When an animal is fed on grease the cells are perfectly delineated and distinct; whereas if an animal be kept on an amylaceous diet we find in the liver a great many molecular particles of fat, very highly attenuated, the cell itself being much paler and containing a chylous matter.

LECTURE III.

We have now arrived at the conclusion that the liver is a most necessary and highly important organ, as might reasonably have been inferred from its size and complicated structure. But this is very different from the opinion which had once been promulgated subsequent to the discovery of the thoracic duct, or receptaculum chyli. Berthollet having proved, as he thought, that the liver was perfectly useless, was said to have written its epitaph.

The circulation of the blood exercises a mechanical action on the functions of the liver, for they are increased or diminished in proportion to the quantity of blood passing through the liver at a given moment. The blood circulating in the vena porta is under the influence of a pressure which is almost always identical, being the force exercised by the vis-a-tergo of the mesenteric arteries, which drive the blood through the intermediate capillaries into the portal system. The vena porta on entering the liver is surrounded by the capsule of Glisson and some cellular tissue, in company with the hepatic artery and lymphatic vessels. When we make a section we find that the vena porta contracts upon itself, its walls not being adherent to the tissue of the liver, as is the case with the hepatic vein, which remains open. Longitudinal muscular fibres are found in the parietes of the hepatic veins, so that, possessing contractibility by means of these fibres, these vessels can shorten themselves and compress the tissue of the liver to which they are intimately bound. The effect of this vascular contraction is to accelerate the circulation of blood in the liver, so that we may consider that organ as a sponge which can be emptied by the contraction of the hepatic

veins. When these veins are paralyzed, as may sometimes happen, a passive congestion of the liver will necessarily ensue.

It is a remarkable fact that diabetic patients have generally a voracious appetite, and digest perfectly well; nay, whenever these functions are disordered, as during fever or any other intercurrent disease, the presence of sugar in the urine ceases immediately.

INFLUENCE OF TEMPERATURE.—When an animal is exposed to very intense cold the liver ceases to act, and sugar disappears from it. Thus if we take a guinea pig and surround it with ice it gradually loses its animal heat, as the cold penetrates into its system, and it is observed that this takes place soonest when accompanied with moisture. Thus its temperature falls from 100 deg. Fahrenheit to 86, then to 77 deg., and lastly to 64 deg. When the temperature of the body has fallen to 68 deg. the animal could not be restored to life, but as low as 69 deg. this could yet be done by warming it up.

When we sacrifice an animal whose temperature has been reduced to 69 deg., we no longer find any sugar in the liver—that organ seems to be paralyzed; but when warmth is restored, the function again returns.

The effects of heat are somewhat analagous. Thus if you put an animal in a heated room, and raise the temperature to 104 deg., we find that all the functions of the liver are increased, and enormous quantities of bile are secreted, but the production of sugar is not increased in the same ratio; in fact, the stage of excitement is soon over and all secretion ceases.

LECTURE IV.

In traversing the liver the blood undergoes several modifications, which are as follows:—

1st. The blood-globules are larger in the vena porta than in the hepatic vein, but this is in consequence of the physical law that blood globules become smaller when put in contact with a liquid containing sugar, as is the case in the hepatic vein.

2d. The difference in the quantity of serum in the blood of the hepatic vein and the vena porta is very apparent; the latter containing the most serum, whereas the coagululum is much larger in the hepatic vein.

3d. Fibrine. The blood which comes from the liver contains no fibrine, so that this latter substance cannot be the coagulable element of the blood.

4th. Albumen. There is less albumen in the blood after traversing the liver than before.

5th. Grease. The proportion of grease is less than in the vena cava.

6th. Temperature of the blood. The temperature of the blood is increased in traversing the liver. This elevation of temperature may be proved by direct experiment. Introduce a thermometer into the vena porta, and you will find the temperature to be about 100 or 102 deg.; whereas, in the hepatic veins it goes up to 104 or 105 deg., the latter being the highest point attained among mammiferous animals. This fact, that the temperature of the blood is increased in the liver, gives rise to numerous physiological deductions.

The increase of temperature continues in the blood of the vena cava and in the right ventricle of the heart, whence the blood is driven into the lungs, and afterwards returned to the left side of the heart. In the lungs the blood coming in contact with a colder medium, some of the heat is given off, and afterwards the temperature falls in proportion as the blood is further from the liver. We thus distinctly state the proposition that venous blood is warmer than arterial blood, though the contrary opinion is still prevalent among many physiologists. According to a theory invented by Lavoisier and almost universally accepted during many years, it was thought that a species of combustion took place in the lung, by which certain elements of the blood were burned while going through this organ, hence the source of animal heat. But it is now well established that no combustion takes place in the lung, and that there is nothing more than an exchange of gases, carbonic acid being given off and oxygen taken in, this being a mere mechanical action and not a chemical one.

Numerous experiments have been made which seem to prove that arterial blood is warmer than venous blood. But the mode of experimenting was fallacious, for they operated on animals by killing them suddenly, and then laying open the thorax in order to expose the heart. But these animals were no longer in a physiological condition, the circulation was stopped, and it was seen that a thermometer introduced into the left ventricle was slightly more elevated than in the right side of the heart.

For the experiment to be accurate, we must unite all the vital elements and operate on the living animal. One of the most convenient for this experiment is the sheep, and the following process seems the best: Open the jugular vein on one side, and introduce a thermometer directly into the right side of the heart, then open the axillary artery, by which you can introduce another thermometer into the left ventricle, taking care to change alternately the two thermometers from side to side, so as to avoid all source of error. In this manner twenty sheep

were operated on, beginning with the right side, and twenty others reversing the operation, by operating first on the left side. The result was constant, that the temperature of the right side of the heart was more elevated than on the left.

It might be asked, why did the experiment on the dead animal give an opposite result? Simply because the left ventricle is four times as thick as the right, and consequently retains the heat four times longer, so that when the heart is laid open, the temperature falls much quicker in the right than in the left ventricle.

The following experiment will demonstrate the different capacities of the two ventricles in retaining heat. Take the heart of a dog, for example, plunge a thermometer into each ventricle, and then put a ligature on all the vessels. Put the heart, thus disposed, into a warm bath at 100 deg., and let it remain until the temperature will have penetrated uniformly on both sides, then take it out at once and let it be exposed to the atmosphere, and you will perceive how much sooner the right side of the heart is influenced than the other. Sir Benjamin Brodie mentions this experiment, which has often been repeated, that when you inflate the lungs of an animal recently killed, the blood continues to circulate, changing from venous to arterial, and yet the temperature gradually falls. Now this proves the lungs are not the source of animal heat, and we place this important function in the liver, for when this organ is paralyzed the temperature falls.

Having established in the last lecture that sugar takes its origin in the liver, we must now consider what becomes of this new product. Here a question of pathology arises, viz., is diabetes dependent on an exaggerated production of sugar, or is it the want of a proper eliminating power, the secretion being natural. Before answering this question we must examine in what manner sugar is destroyed. The animal system has the property of eliminating a certain proportion of sugar, which is generally greater than the quantity produced in the liver during the same time. Different kinds of sugar are more easily eliminated than others, we shall therefore divide them into two great classes.

1st, cane sugar, which is decomposed by the acids.

2d, grape sugar, which is destroyed by the alkalies.

When the first kind is introduced directly into the circulation, and otherwise it cannot be, since the acids of the stomach decompose cane sugar, we find, as the experiment will show, that cane sugar is not eliminated in the same way as glucose or grape sugar.

When we introduce into the system a solution containing a definite

quantity of either cane sugar, grape sugar, or diabetic sugar we find a very different result, so far as their destructibility is concerned. The best way of making the experiment is to inject the liquid into the cellular tissue beneath the skin, because absorption taking place gradually imitates better a physiological process, and, moreover, we can thus introduce much larger quantities of liquid than it would be safe to inject directly into the veins of an animal.

The following table will show you how much sugar can be destroyed in the system without any of it appearing in the urine, and nothing but actual experiment could have made us aware of the fact, for their chemical composition is the same. It is difficult to obtain the sugar from the liver in a crystalline state, but we can get a concentrated solution resembling molasses, and from this we make a solution corresponding in degree to the other varieties. In the following table the first column gives the quantity of sugar injected into the animal, the second the quantity of water, the third column shows whether any sugar appeared in the urine, and the fourth gives the weight of the animals operated upon, which were rabbits.

Cane sugar	-	-	0.5 grammes	25	- S.	-	-	865 gr.
Milk sugar	-	-	0.5	"	25	- 0	-	810 gr.
Glucose	-	-	1.0	"	25	- 0	-	865 gr.
Ditto	-	-	1.5	"	25	- S.	-	920 gr.
Diabetic sugar	-	-	1.5	"	25	- 0	-	1000 gr.
Sugar from the liver	-	-	2.0	"	25	- 0	-	1000 gr.

In making this experiment we must note the degree of concentration of each solution, and it is important that the quantity of water be the same in every case, for the result varies according to the quantity of liquid absorbed during a given time. Thus, if instead of one gramme of sugar for 25 of water we were to inject a solution containing one gramme of sugar to 8 of water, we should, in a given time, introduce three times the quantity of sugar, the absorbing power being in both cases the same, and the result would be, that though in the former case no sugar appeared in the urine, in the latter we should find some; because instead of requiring an hour for absorption to take place, the whole would be thrown into the circulation in less than half that time.

We have seen that a gramme of sugar is destroyed when injected in the form of a simple solution in water. But if to the same quantity of sugar we add two grammes of common salt, the sugar will no longer be totally destroyed in the system, a portion will appear in the urine. Now the question arises, why is a solution of sugar with salt not destroyed,

when the same quantity disappears completely if it be unmixed. The reason is not that salt thus combined with sugar prevents the latter from being destroyed, but because absorption is rendered much more active, and the same quantity enters in a much shorter time. It is well known that common salt, or chloride of sodium, is endowed with a very great endosmotic power, and possesses the virtue, when combined with sugar, of increasing the endosmotic action of the latter, and carrying it along at its own rate of absorption.

It is on this principle that combinations of different substances change their respective endosmotic powers, rendering them susceptible of passing through organs where they are never found separately. Lactate of iron, for instance, though administered internally, never appears in the saliva; iodine, on the contrary, has a very great affinity for the salivary glands, where the minutest quantities may be traced by a most delicate test, viz., a solution of starch. When the two substances are combined, we obtain the iodide of iron, and in this combination the iodide is found in the saliva along with the iodine; so that the faculty possessed by the organism of destroying a certain quantity of sugar is subsidiary to this other consideration, viz., the rapidity of absorption. The above table shows that the sugar produced by the liver is more readily destroyed than any other variety, and besides, it is only given out in small quantities by the organ producing it, the supply being proportioned to the wants of the system.

How is the sugar destroyed?

There are several elements in the blood which may be said to possess this property. In the first place it was supposed that sugar was destroyed in the lungs by a species of combustion or oxidation, produced by the action of air upon the blood. But it has been ascertained that the period when the blood contains the greatest quantity of sugar is not that in which the most oxygen is absorbed, so that there is no direct ratio between the destruction of sugar and the absorption of oxygen. If we take blood from an animal which has been fasting, and from another during digestion, it will be ascertained that the latter absorbs the most oxygen.

M. Regnault, who made numerous experiments on the respiratory function, has seen that during digestion the quantity of oxygen absorbed is greater than the carbonic acid disengaged. When animals are slowly asphyxiated by being gradually deprived of air, the sugar is still destroyed, which shows that the presence of oxygen is not necessary for this purpose.

Let us now see whether the sugar can be destroyed by a peculiar species of fermentation. This must take place either in the lung or in the general capillary system. During the passage of the blood through the lung, the sugar is changed into a lactate by coming in contact with a certain quantity of lactic acid, generated in this organ. By this process the greater part of the sugar is destroyed; what remains is carried to the general capillary system, where the sugar is transformed into carbonic acid, and the change takes place from arterial to venous blood.

If we partially amputate the leg of an animal, in such a way as to cut off all communication with the trunk, except by an artery and a vein, it will be seen that the blood which returns by the vein gradually loses the appearance of venous blood, becoming less black, until it returns with all the appearance of arterial blood. The reason of this singular phenomenon is, that nervous influence having been entirely removed, no chemical change takes place in the capillaries, the circulation becoming subject to mere mechanical laws. As we advance we shall have other opportunities of showing the influence of innervation on the vital phenomena.

The destruction of sugar does not resemble an alcoholic fermentation, for no traces of alcohol have ever been found, except in those persons who had been in the habit of taking large quantities during life. If we inject a small quantity of yeast into the veins of an animal, alcoholic fermentation takes place on account of the presence of sugar, and the animal has every appearance of being inebriated. But this fermentation decomposes the blood by altering its color and consistency, at the same time the mucous membranes seem disorganized, and the animals die from a species of dysentery.

To resume, in a few words, the preceding considerations, we must say, that sugar is destroyed in the blood by some principle resembling a ferment, but that the exact nature of this substance has heretofore escaped us, for it has not yet been isolated.

LECTURE V.

From the fact of sugar being found in the system during uterine life, we may presume that it performs some important function in the foetal growth. Our first ideas on the subject were developed from some experiments undertaken with a view to ascertain the development of organic cells, and from these we were led to suppose that sugar played a similar part in relation to animal life. All the tissues in the animal economy take their origin from a cell, which is the simplest and most primitive form of organized bodies. This being the point of departure,

then comes another element, which, acting on the growth of cells, produces a certain tissue instead of any other, and that is the *medium* in which the development takes place. We may begin with the simplest forms of vegetable growth. Let us take, for instance, the peculiar ferment used for making beer, called yeast, for this is nothing more than a vegetable which develops itself in a certain medium, and under peculiar circumstances. To constitute this two things are required: first, the presence of some azotized or albuminous matter, and, secondly, a saccharine product.

Thus if we put some yeast into the serum of blood, no organic development takes place, but if we add a small quantity of sugar, we see at the end of 4, 6 or 8 days a number of cells in process of development. These are of two kinds; the first, which are whitish in appearance, are animal cells; the second, somewhat smaller than the first, are vegetable cells, produced by the action of the yeast—both have characteristic properties. Thus if iodine be applied to the second variety, it gives them a deep blue color, whereas it has no action on the first kind. Acetic acid, on the other hand, dissolves the animal cell, while, on the contrary, it increases the vegetable cell. When vegetables are in process of fermentation, we find that various albuminoid matters, such as casein, starch, &c., are transformed into dextrine and then into sugar, and this furnishes the material for the development of the vegetable cell.

Now the question was, what means were there of studying the development of animal tissue. For this purpose we made numerous experiments on foetal calves, and we thus saw that by taking the muscle at the commencement of foetal life, when the muscular fibre was yet in progress of development, that these portions of foetus soon became intensely acid, presenting all the characteristics of lactic acid, and in great abundance. Now lactic acid is only one of the transformations which may be assumed by the different saccharine products. Take, for instance, a portion either of the intestine, the stomach, or the bladder, put it in contact with sugar, and you will produce lactic acid. In the same way starch can only be turned into sugar by passing through the intermediate form of dextrine.

We afterwards took a portion of foetal muscle, and by submitting it to fermentation, found that it plainly showed the presence of sugar. But this property of muscular tissue only exists during foetal life, and even then at the earliest periods of conception. The most remarkable circumstance about this is, that sugar is found in the muscles before the

liver contains any, and the younger the foetus the greater the quantity of sugar. Towards eight months, the development of muscle being complete, no more sugar is found. Having ascertained these facts on foetal calves, we next applied them to the human foetus, and found that they were equally true in both cases.

It thus seems that certain tissues in the body, as the muscles, the heart, the intestines, &c., require the presence of sugar for their development. But the various glandular organs, such as the thymus, the spleen, the salivary glands, and the pancreas, never contain any sugar. The lung partakes of the nature of the muscular tissue, and develops itself under the same conditions. The nervous system and spinal marrow never contain any sugar. The liver itself, whose function is subsequently that of producing sugar, does not require any for its foetal development.

Thus it is that the laws which preside over the generation of animals present many points of analogy with the germination of plants, being a connecting link between these two vast orders of created things.

What do we see taking place in embryogeny? That a cell develops itself by attracting other cells, in order that the first may assume a given determinate form. When we arrest this mutability of organic cells, the different phases necessary to their development are also arrested, and embryonic life ceases at the same time.

When foetal development is complete, and the new being is ushered into the world, it becomes subject to new laws of nutrition and growth, at the same time that the waste of the tissues require a constant supply of new materials. But then the muscle itself no longer produces sugar, an organ is set apart for that particular purpose, and the liver hereafter supplies the sugar which is necessary for maintaining the different organs in a physiological state.

LECTURE VI.

We must now examine the influence of the nervous system upon the functions of the liver. By acting on certain nerves we can modify the secretion of sugar in different ways: it can be diminished, and even completely arrested. On the other hand, the quantity of sugar can be so increased as to render the animal diabetic. Lastly, we can so alter the functions of the liver that this organ will not secrete sugar directly, but a substance which can be transformed into sugar. This last mode of action depends especially on the action of the great sympathetic nerve, which has been morbidly perverted.

Firstly, if we cut the two pneumogastric nerves of a dog, we shall find

that at the end of 24 or 48 hours the sugar has completely disappeared from the liver. The section of these nerves produces paralysis of the liver, and as soon as this is the case the sugar disappears, so that we cannot consider this organ as a simple reservoir for sugar derived from an external source, for the section of the nerve does not destroy the sugar which has accumulated there, but prevents the formation of any more; and as in the mean time the consumption continues, the liver is soon completely deprived of sugar.

Secondly, the production of sugar can be increased in several ways. If we introduce a sharp-pointed instrument into a certain part of the nervous system, we shall immediately see sugar appear in the urine, and the animal will present all the symptoms of diabetes. In order to produce this effect, the instrument must reach that part of the medulla oblongata situated between the origin of the auditory nerve in front and that of the pneumogastric behind, so that through the bones of the cranium we must reach that bundle of fibres called the *fasciculi innominata*, situated in the interior of the medulla oblongata, between the corpora olivaria and the corpora restiformia. On the rabbit we have as a guide a small tuberosity, situated immediately behind the occipital protuberance; this is the point where we must introduce the instrument. The animal can be rendered diabetic by another process, which consists in laying open the pneumogastric nerve and galvanizing it; but the nerve is soon destroyed by this means, and the animal perishes. The result of these experiments is, that the functions of the liver are exaggerated; it produces sugar in such abundance, that the blood receiving more than it can destroy is soon saturated, and the sugar appears in the urine.

But it might be asked, why was this precise point of the medulla spinalis chosen instead of any other for the subject of experiment? This point was not stumbled upon at once, but arrived at by degrees, after the following mode of reasoning. We had ascertained that when a section was made of the 7th and 8th pair of nerves at the precise point of their entering the petrous portion of the temporal bone, that if by chance the operation did not succeed, and the animal was only wounded near the origin of those nerves, then an opposite result was obtained from what was expected, and that instead of being paralyzed the nerves were violently excited. Now at that very time we were most anxious to find some means of increasing the secretions of the liver, and we had ascertained that when the pneumogastric nerves were cut the liver was completely paralyzed; it immediately occurred to us, that perhaps by wound-

ing an animal near the origin of those nerves in the medulla oblongata we might obtain the opposite result. The experiment was accordingly tried, and, strange to say, succeeded the very first time; the animal was found to be diabetic in an hour's time. We then naturally attempted to explain the phenomena in the following way. That as the pneumogastric nerves preside over the functions of the liver, if they were excited these functions must necessarily be excited at the same time. But though the fact was true, the explanation was false. Other experiments showed us that when a section was made of the pneumogastric nerves, cutting off all communication with their origin, and then introducing the instrument so as to wound the spinal marrow at the given point, the animal was rendered diabetic in the same way as if the nerves were entire, so that the conclusion was certain, it could not be the excitement of the pneumogastric nerves which acted on the liver. Further researches proved satisfactorily that it was not a direct influence on the liver, but a reflex action exercised by the great sympathetic nerve, and transmitted by the medulla oblongata in the following way. The pneumogastric nerve descends along the œsophagus, and gives different branches, which are distributed to the lungs, to the heart, to the stomach and the liver. If a section be made of the pneumogastric nerve, and we galvanize the central extremity of that nerve, that is to say, the part communicating with the brain, the secretion of sugar returns. This experiment shows that the effect of the section of the pneumogastric nerve is not by preventing the nervous influence from being carried to the liver, but by preventing the exciting action of the air on the lung from being transmitted to the spinal marrow, whence it is carried back to the liver by reflex action.

Here is the proof of this assertion.

If you replace the action of the air by galvanizing the central part of the nerve, the functions of the liver return, but in an exaggerated manner; the animal becomes diabetic, because the air, which is the natural exciting agent of the lungs, has been exchanged for a much more violent one, viz., galvanism.

In the same way, when you wound an animal in the medulla oblongata, the action of the air is replaced by a much greater irritating cause. If the section of the pneumogastric nerves be made *below* the point of distribution to the lung, no effect whatever is experienced by the liver, which continues to secrete sugar as before the operation. The result of the operation will be a slight paralysis of the stomach; but the animal will live very well, provided the food given to it be of a kind easily

digested. In order to make a section of the pneumogastric nerve, we must use a peculiar instrument, made in the shape of a hook, and cutting by its concave side. Make the incision along the ribs, in such a way as that, by a little displacement of the skin, you can destroy at will the parallelism between the edges of the wound, so as to prevent the introduction of air into the cavity of the thorax; introduce your finger by the opening, and you will feel along the œsophagus two cords somewhat on the stretch—these are the pneumogastric nerves. Take them carefully on the hook and cut by drawing outwards, so as not to wound the alimentary canal.

We have seen that when an animal is wounded in a certain part of the medulla oblongata, the secretory function of the liver is increased, but at the same time we produce an exaggeration of the urinary secretion, and the animal passes unusual quantities of urine; the kidneys are found to be congested, and the seat of increased nervous action. Now the next point was to ascertain if it would be possible to produce simple polydipsia, or the increased flow of urine, without any sugar. We ascertained accordingly, that by introducing the instrument above the origin of the auditory nerve we produced a simple exaggeration of the urinary secretion, without any sugar.

Traumatic diabetes has sometimes been observed in human individuals. A few years ago an instance of the kind was seen in the wards of M. Rayer, at the "Charité," being a woman who was diabetic in consequence of a fall. Another case presented itself in the person of a stone-cutter, who having fallen from a height, fractured his skull, and became diabetic, but he got well in two weeks.

It has been observed, that when we suppress the functions by which an animal is in relation with external objects, and we leave intact the functions of organic life, that these latter are thereby exaggerated. The liver, the intestines, the glands are then over-excited and secrete abundantly their separate products. Here is an experiment which confirms this assertion. When we put some Woorara poison under the skin of an animal we destroy its sensibility, the muscles cease to act, and the respiratory movements soon stop; but if we keep up artificial respiration the blood continues to circulate, and we see the tears, the urine, and the saliva flowing in great abundance; the function of the liver is also exaggerated, the blood very soon contains sugar in abnormal quantities, and the animal becomes diabetic. When an animal is put under the influence of chloroform or ether it becomes diabetic. It was supposed that the explanation of the fact was, the lungs acting inefficiently

does not destroy the sugar which then accumulates in the blood. But it is not so. Chloroform or ether, like the Woorara poison, destroys sensibility, and abolishes the functions of external life, while the interior functions continue in an exaggerated manner, so that mere diabetes is caused by an over-excitement of all the glands.

AN ADDRESS TO THE MEDICAL PROFESSION OF THE STATE OF LOUISIANA.

By M. SCHUPPERT, M.D., New Orleans.

"Salus populi suprema lex."

Medicine, although forming an integral part of the natural sciences, has, in the course of time, and in consequence of its perfection and increasing acquisitions, attained an almost independent position.

Notwithstanding the many changes of systems and the uncertainty of many of its rules, Medicine, in point of importance, has left its sister sciences far in the rear.

Let physical sciences, and especially chemistry, pride themselves on the precision of their results; let astronomy triumph over its achievements; let mineralogy disclose the treasures of the earth, and botany reveal creative nature even to the origin of cellular life; Medicine has chosen for its peculiar province *Man*. The good it strives to attain is the noblest, but, with regard to its objects, the most difficult. Seizing upon all parts of the universal whole, borrowing from the accumulated treasures of natural history, its endeavors are directed to guard the short span of human life against pernicious influences, to fathom the nature and causes of diseases, and to render them innocuous. Of greater extent than every other science, medicine is unfortunately rich in hypothesis, but reason and justice will not, therefore, withhold their tribute of respect. The merits and importance of Medicine, not only with regard to individual existence, but to the common weal, have been acknowledged by all civilized nations. No proof of its worth, respecting the public welfare, can be more striking than the position it occupies by administrative and judicial suffrage.

A science, which a lifetime is scarcely sufficient to compass, and the study of which requires the sacrifice of all personal comforts, a vocation which knows neither difficulties nor danger, which has to wrestle with all the adversities of life, has a right to exact and look for certain privileges.

As it is to the interest of the citizen as well as to the community, it becomes the duty of every well-regulated government to protect the true representatives of this noble science, and guard the honor of their position against the pestilence of ignorance and quackery. These views of the importance and high nature of the medical vocation are so just and universally acknowledged by all civilized nations, that laws of a government conflicting with its interests would be regarded as a proof of deficiency of intelligence.

Contrary to the dictates of reason and to the state of intellectual culture of the nineteenth century, the General Assembly of the State of Louisiana in general assembly convened, issued the following decree in the year 1852, viz.:

“That every person having a diploma from any chartered or medical college or society in the United States, whether the same be allopathic or otherwise, shall be allowed to practice medicine, surgery, or midwifery in the State without having to procure any further license, and may charge, demand and receive for their visits, medicines, prescriptions and medical services such compensation as may be established according to law.”

Let us inquire into the value of this law; what it protects, and what security it offers to the public and general safety—a matter of paramount importance, and worthy of the most serious consideration.

This law requires for the practice of medicine a diploma, a certificate of the capacity of the medical practitioner. At the first glance, our legislators appear to have been aware of the importance of keeping the practice of medicine within certain limits; but where is the proper authority to establish the capacity of the individual aspiring to this noble vocation? Philanthropy and common sense would have pointed to a tribunal of medical men, distinguished among us for their zeal and ability in the cultivation of medicine as a science; but have our legislators exhibited such unbiassed interest in the common welfare? No, no real guaranty is exacted; the clause “whether the same be allopathic or otherwise,” is skillfully inserted by the projectors of the act, and science droops under the withering influence of the unholy shock.

No one can deny for a moment that this clause of the act implies the most complete disregard for real medical qualification. It is therefore, a bogus coin; its consideration is annihilated; and most deplorable to admit, this law decrees the complete emancipation of quackdom and outlaws the medical profession.

“It is no part
Of prudence to cry down an art,
And what it may perform deny,
Because you understand not why.”

The times of superstition have not yet passed. The great majority of mankind is as yet incapable of forming a rational opinion of all things, but “the assembled wisdom of the State” is to be held responsible for the enactment of laws which, instead of being a public benefit, are destructive of the happiness of the people.

I am willing to incur the reproach of being unjust, and to acknowledge precipitance in judgment, if it be proved—

1st, That it was at all necessary to abrogate the law which existed for the protection of the public, as well as the medical profession, against fraud and spoilation.

2d, That all medical societies in the United States, whose diplomas are to be recognized by this State, according to law, can be trusted to establish that confidence in the physician which is required by the exigencies of the science of medicine.

3d, That a single argument can be adduced why, in passing this law, it appeared at last unnecessary to appoint a board of examiners whose province it should be to demand such diplomas as are required under the enactment in question.

I have no fear of being convicted of harsh judgment.

The consequence of this law is, that mountebanks, inundating the country, experiment at the expense of the incredulous mass, and drive a brisk trade by swindling their victims. Every barrier which before existed in the way of shameless effrontery has been removed, and criminals are no longer discouraged.

Take a walk through the streets of our city, or read the public journals of each morning, and you find, not imaginary visions, but incontrovertible facts, which render it impossible for you to retain the natural color of your cheek, and leave you doubtful whether the moral laws of human nature are still in operation.

And how comes it, men of the medical profession, that this execrable law, after having existed three years, and produced so much injury in its course, is allowed to go on operating without a single voice being raised for reform? Why is it that steps have not been taken to arrest this plague, of the baneful influences of which I affirm you are all convinced? Has ambition and professional honor so totally deserted the body professional that it no longer feels the indignity of such a law?

Do we despair of a remedy, or has fatalism become the reigning idea amongst us, that when the moment arrives the evil will remedy itself? Are not a well-directed medical organization, and laws protecting the dearest interests of the public, in strict consonance with republican institutions?

There may be many amongst us who, from position and advantages, are unacquainted with the full depth of the misery brought about by existing abuses, but the nobler feelings of humanity are not on this account stifled in your bosoms. Behold our miserable apothecary system! Look at the humbug of "patent medicines!" See the sad consequences of an uncontrolled practice of midwifery, and the sad havoc produced by unrestrained prostitution, and say, in the face of all these, that reform is out of place! We had better "proclaim ourselves at once eighty years of age," speak where silence is crime, or protest where repose is destruction. If once defeated, shall we never rise again? A citizen in a free country, wilfully abandoning the rights guarantied him, will become more deplorable than a subject living under tyrannical rule. Can we expect to maintain unblemished the character of men when we suffer wisdom, virtue and intelligence to perish? Can love for study and desire for intellectual perfection continue when true merit is trampled in the dust? Can we expect the blessings of republican institutions when the edifice of liberty is built on a foundation of robbery and fraud? Shall it be the reward of Medicine, for such multiplied benefits furnished society, for so many sacrifices to save the lives of men, for such great discoveries, that she is to sink at last into obscurity? Will the medical profession of this State make no effort to attain their proper exalted position in society?

There cannot be a doubt that many members of the medical profession in this city have experienced fully the sad consequences of this law. It cannot appear wonderful, under existing circumstances, that we see a "city physician" testifying that a wound (inflicted on a man laboring under a species of insanity, as stated by a witness, and who died afterwards) was sufficient to cause death, and "declaring it was his opinion it did cause death; that he made no other examination than probing the wound and noticing its exterior appearance; did not examine the condition of the internal parts, as lungs, liver, stomach, brain; did not know whether deceased had any organic or other disease which might have produced death."

This is not only to be attributed to corruption, which predominates in the appointments to public offices; it is the law, which by abrogating

reason substitutes instinct, to which is to be ascribed the fact that such pseudo-physicians mount to public honors of such high importance.

"In nations, as in individuals, a harvest of prosperity never yet was reaped from seed sown in injustice."

A law of such mischievous influence must not only excite our pity and contempt; it must be made harmless by repeal.

In the summer of 1853 I was called on to deliver a woman. The "midwife" in attendance informed me that a "doctor" had made several efforts to perform version in the case, but in vain, and had taken leave, to call next day. I found protruding a dislocated arm belonging to a dead fœtus, the mother being in a dying condition. The uterus was lacerated. Several weeks after this I was compelled to witness the birth of a child nearly scalped while yet unborn, the "midwife" having mistaken the scalp for an "obstinate bag of waters," and having worked through the same with a pair of scissors, in order to clear the way for the skull. The child died three days afterwards, in consequence of the injuries inflicted.

I could recount a series of similar butcheries, and furnish more striking examples of unpardonable malpractice, if the outrages enumerated were not sufficient to illustrate the times in which we live—if I could imagine that I was relating something novel. The annals of this city are blotted with so many of these melancholy and disgraceful facts, and legalized murder is such an every-day occurrence, that the recital appears to lose entirely its horrible interest. However, a single case which happened lately, and was reported by a professional witness, may not be out of place here, not only on account of the enormity of the crime, but as a proof of the proposition before advanced, that the majority of mankind is quite incompetent to judge correctly of the capacity of a practitioner, since the perpetrator of this wondrous deed rejoices in an extensive reputation and practice amongst all classes of society. The much-abused domain of midwifery is again the theme, and again the hovel of intellectual poverty gives shelter to the crime.

A woman in labor, who had several years before given safe birth to a child, when convinced she could not be delivered without assistance, sent for the worthy son (no, *bastard*) of Æsculapius in question. After many fruitless efforts to apply the forceps, and nearly twenty-four hours after, when the uterus had ceased to contract, this doctor (!) determined to perform cephalotripsy. *With the woman in a hopeless state of exhaustion, with a pelvis full three inches in its conjugate diameter, and with the positive knowledge that the child still lived,* the cephalotribe was

applied, and this —— (no, language has no name for him) boldly turned the crank and crushed the head to atoms. But was the mangled foetus now delivered? No, the uterus had lost its expulsive force—was dead. Version was *now attempted*, and an *arm* (!!) was delivered. That little hand came forth, not to greet the skillful accoucheur, but to point to the untimely grave of a fond mother, and the inevitable doom of a legalized infanticide. That grave holds the remains of a mother who carried her offspring not only to the “full term” allotted by nature, but to the dismal tomb.

But I will not shock the moral sensibilities of the reader further; I see his conscience tells him that he has neglected his most important duty to himself and his fellow-men. Yet I have but related the sad consequences of this most disgraceful “act” of the representatives of an enlightened people, chosen to deliberate over the welfare of their constituents. As a rule, we all know full well what portion of the community suffers most under this pernicious law, and is it not revolting to think that law-makers in a democratic land display such utter indifference towards the uneducated and innocent poor? that the “bone and sinew” of our State are thus stripped of every protection against the terror of such calamities? The rich and educated suffer with their eyes open, and there is no sympathy due them.

Can such a law stand the test of universally acknowledged principles of justice, or does it answer the usages of civilization? Shall personal and social security be thus kept in perpetual jeopardy? Wounds inflicted on the social body by pestilence will in time be repaired, but we must bleed to death from those thus daily opened afresh. The natural impulses which tie man to man must make every well-thinking soul shudder with pain and disgust at such deplorable misery and shocking, yet legalized crime.

Legislative power may sometimes turn aside from the path of justice when a greater evil may be removed by the establishment of a lesser. No one is more ready than myself to acknowledge that there are cases wherein injustice may be justifiable, as when the common welfare of a people demands the sacrifice of individual right; but here it is public welfare yielding to private speculations of the most unholy nature. Such misconceptions may begin in error, but they continue only in negligence and fraud.

Were not misery and the causes of rapid depopulation already sufficient, without enacting laws to increase still more the sources of evil, to promote insolence originating in impunity? Did the interests of the

community demand the absolute encouragement of those vampires who live on the blood of the industrious poor?—of that band of criminals whose vocation seems to be to extinguish life instead of protecting and prolonging it?—of those corner parasites who live on rapine and extortion?—of those men vomited forth from all quarters of the globe?—of men, signalized by a satirist, “a body too lazy to work and too cowardly to get an honorable living by stealing, adopting a method to sponge bread and butter out of those whom God, in his mysterious wisdom, has thought fit to send on earth weak enough to believe their idiotic ravings?”

I know it is the habit of some to represent any reference to topics of this nature as arising out of personal interest, ambition and jealousy. If any man has an interest in social and personal security, I have; if it is ambition to desire a share in the liberation of our profession from servitude, vandalism and pollution, be it so; if jealousy consists in an inextinguishable natural animosity against principles destitute of elevation of mind, justice and sound reasoning, call it jealousy. If the representatives of every trade have a right to throw barriers in the way of the prosperity and usefulness of medicine, her votaries have at least the right to remonstrate. When this “act” was about being passed by our legislature was there an intelligent voice in either hall which even ventured those concentrated words of wisdom, *audi alteram partem*? No, wisdom fans in vain the heated pates of pot-house legislators; and as to the “common weal,” it has become but dough in the hands of our representatives, and is now shaped to mean, the *interests* of the few without regard to the requirements of the many.

We can no longer hesitate to declare this law iniquitous in its origin, worse in its consequences, diametrically opposed to the prosperity, dignity and usefulness of the science of medicine, and in contravention to the principles of sound government and the wisdom of the age. I repeat, this law sanctions a violent invasion into the security of life, it has no foundation in necessity or utility, and it is an act of unnatural rebellion against the dominion of reason and justice. Founded on a total misconception (to be charitable), it is the most abominable act of injustice that has ever been inflicted on a generous part of society. There is not an eye but must look reproof, not a heart but must throb its condemnation. Experience has given judgment, and it is at least a consolation to know that institutions which result in such disastrous consequences will not last for ever, that the reign of injustice will not be eternal.

I have raised my feeble voice for the most sacred rights of public

welfare, and the dearest interests of our profession, and I cannot conclude better than with the noble sentiment of our new governor :

“ May the future redeem the errors of the past, and, striking boldly and freely at all maladministration, vindicate the purity and wisdom of our republican institutions, while we promote and enlarge our material interests.”

CASE OF SEVERE BURN.

Reported by E. MARTIN, M.D., Visiting Surgeon Charity Hospital.

The following interesting case of extremely severe burn fell lately under my observation in the practice of one of our *confrères*, Dr. Barbe.

Miss Mary R——, a pretty girl, of good constitution, was standing by the fire on the 18th of last January, when her dress, which happened to be of cotton, ignited. A friend who was present endeavored to extinguish the flame by enveloping her in a coverlet. In her fright, however, she escaped from the offered assistance, fled to the staircase and into the yard, where her mother finally succeeded, at the cost of considerable injury to herself, in subduing the flames.

She was immediately placed in bed; a physician saw her two or three hours afterwards, and found at least two-thirds of the whole surface of the body presenting different degrees of burn. The only parts of the body which had been spared were the neck, shoulders and a small part of the anterior surface of the abdomen and thighs; the rest of the surface in the parts least affected was covered with vesicles, some of which adhered to the clothes; other portions were completely denuded, and of a color denoting a more severe lesion affecting the true skin. At several points there existed large purplish spots, which were so devoid of sensibility that the prick of a pin was unfelt; such was especially the condition of the gluteal region, the posterior portion of the legs, and the waist. The pulse was frequent (140) and scarcely perceptible. There was great stupor, but moderate pain. The menstrual flow had begun the morning of the accident.

The first advice given by the physician in attendance was to keep the patient undisturbed, and to be heedless of the advice of ignorant but well-meaning friends, whose prescriptions for burns but too often prove more injurious than the lesion itself. A promise to this effect being obtained the treatment was begun.

The cold at the time being intense, a thermometer was placed in the

room, with orders that the temperature should be maintained at 80 or 90 deg. of Fahrenheit. The patient was placed naked in bed, on the abdomen, the only position which was bearable, and hoops arranged over her to protect the skin from contact with the coverlet. The right arm, terribly burned at the elbow, was so placed as to be free from contact with the bed clothes. The treatment was begun by the application of the following liniment, applied to the burned surfaces every half hour.

R	Chloride sod. (Labarraque)	-	-	-	6 parts.
	Laudanum	-	-	-	1 "
	Olive oil	-	-	-	10 "
	White of egg	-	-	-	Q. S.

M.

Her thirst was great, but she was allowed small quantities of water at a time, on account of irritability of the stomach. An anodyne mixture was also ordered.

On the 19th. Liniment was continued, being applied every hour during the day, and every two during the night.

20th. The weather still intensely cold; renewed care was used to preserve the patient from its influence. Slight symptoms of narcotism which now manifested themselves rendered it necessary to suspend the laudanum in the liniment, the application of which was continued as before, during the day, and only three times during the night.

21st. Continued treatment.

22d. Pulse stronger but still frequent (120 to 130); some appetite; vomiting diminished. The general condition of the patient has been good throughout the treatment thus far, presenting nothing worthy of note except increased frequency of pulse, but without any febrile symptoms. The limits of the burns in the different grades were well defined. The deeper burns suppurated, and the same application was made as on the 20th, with the exception that the quantity of laudanum was slightly diminished.

23d to 25th. Treatment continued; very light diet, wine and water.

26th. Rainy and stormy; she passed a restless night. Balsam copaiba was added to the liniment on account of the electric state of the atmosphere. Anodyne pills; a dose of citrate of magnesia.

27th. Copious evacuations.

28th. Cold intense. On account of the increased tendency to suppuration and the nervousness of the patient, the following liniments were prescribed:

R	Chloride of soda	-	-	-	-	-	6 parts.
	Balsam copaiba	-	-	-	-	-	2 "
	Oil	-	-	-	-	-	12 "
	White of egg	-	-	-	-	-	Q. S.

To be used generally, and

	Chloride of soda	-	-	-	-	-	6 parts.
	Laudanum	-	-	-	-	-	2 "
	Oil	-	-	-	-	-	8 "
	White of egg	-	-	-	-	-	Q. S.

To be used on parts least affected.

29th and 30th. Treatment continued.

31st. The laudanum in the liniment was omitted.

From the 1st to the 6th of February there was but little modification in the treatment. On the 6th, attempts were made to remove the scabs which had formed over the burnt surfaces; some of these were thick and soft where the lesion had been extensive, and others were thin, hard and fissured where the injury had been less; these latter, on their removal, showed the skin white and of the natural appearance. Only those were removed which came away easily. Linseed oil was applied to the healed parts, and continued for several days, to preserve the softness of the skin. The liniment prescribed on the 3d of January was continued on the other parts. On the 10th a full bath was ordered, the weather not permitting it to be sooner used. From this date to the present time the patient bathed at intervals, with advantage.

The patient gradually mended, and is now able to go from one room to another. Her appetite and digestive functions have been for some time re-established. Her menstrual flow, which ceased at the moment of the accident, has not reappeared. The condition of the skin is good; it has remained supple, and has been preserved in those parts most affected from those rigid and contracted cicatrices which are so often the result of burns.

In examining this case, we see that the treatment was based upon one idea, viz., of preventing suppuration, and to accomplish this nothing was permitted to come in contact with the burnt surface but the liniments. The quantity of chloride of soda should be varied in accordance with the greater or less tendency to suppuration, which may be moderated, or even checked by this means. The proper time for the use of the laudanum is indicated by the general symptoms. The addition of balsam copaiba to the liniment seemed to be indicated by the electrical state of the atmosphere; this, however, is a mere speculative

idea. The white of egg is important on account of the consistence which it gives to the liniment, which acquires therefrom the property of forming an artificial epidermis until nature has completed the work of reparation. This plan of treatment in covering of burns has been employed for fifteen years by the physician who directed the treatment of Miss R., but no case so formidable has ever before presented itself to confirm its happy effects: for accidents caused by the burning of the clothes are usually so rapidly followed by death that all medication is useless.

Finally, the principal advantages of the treatment are, that the fever is moderated and often obviated; the immediate or consecutive consequences of suppuration are prevented, and that most satisfactory of all results, the integrity of the skin, is obtained. One great difficulty in extensive burns is to find a position which, while being easy to the patient, leaves the injuries exposed to the eye of the physician. The difficulty was overcome by the plan adopted in the above case.

A CASE OF CROUP SUCCESSFULLY TREATED,

With Remarks by EDWARD JENNER COXE, M.D., Visiting Physician Charity Hospital, N.O.

Of the numerous cases of croup which during the last thirty years I have been called to treat, I do not remember any one to surpass, if equal, in point of practical interest and utility, the following, of recent occurrence, which, notwithstanding the unfavorable circumstances of duration and preliminary treatment, I have pleasure in reporting as perfectly cured. In relating this case, the plan of treatment, fully laid down, will enable me to append some general remarks as to the appropriate manner, in my opinion, of treating successfully that acknowledged insidious and frequently fatal disease, croup, nor can I doubt that if such a course as the treatment here laid down and pursued was more generally acted upon, the number of fatal cases would be materially diminished.

March 12, 1856. I was called in haste to visit the female child of a friend, six years of age, supposed to be dying from suffocation, the result of croup. Being absent from home when sent for, the parents believing their child to be expiring, naturally sent for the first to be found. When I reached the house in about half an hour, I found Dr. P. present. The condition of the child was as follows: Great hoarseness of voice and cough, and on inspiration the air appeared as if passing

through a dry metallic tube, the skin hot and dry, face much flushed, eyes injected, pulse moderately full, but weak and easily compressed. It required but a short time to learn that the child had been attacked eight days previously with croup, and during that time had been attended by a homœopathic physician. From day to day the parents were told that she was improving, that there was little danger, and yet for days the hoarseness of voice, cough, and inspiration was heard over the house; but when suddenly the child was found to be gasping for breath, and becoming black or livid in the face, it became painfully evident that great danger was present, and additional aid required. It was quite evident, without much examination, by applying the ear to the chest, that the disease had implicated the large as well as the small air tubes. Without wasting time to discover to what precise extent the lungs were affected, action, prompt and energetic, was instantly demanded, in order to afford the slightest prospect of success.

Dr. P. had ordered the following—*R.* Tart. emet. gr. i, *Syr.* Ipecacuanha \mathfrak{z} i, *Mucilaginis* \mathfrak{z} iv. *M.* Dose, one teaspoonful every half-hour, but as no effect had been produced by the first dose, I at once gave one-fourth of the mixture, and in a few minutes another fourth, and in no long time the balance. No sensible effect resulting, I ordered as follows: *R.* Ant. et Pot. Tart. gr. iv., *Aquæ* \mathfrak{z} ss., *Syr.* Ipecac. \mathfrak{z} i., *Syr.* Scillæ. comp. \mathfrak{z} i m., *Hydrarg.* chlo. mit. gr. xii, in one powder. Before this medicine was received, the child threw up the contents of the stomach without effort or straining. As soon as the medicine was received, one-half of the calomel was given in one teaspoonful of the mixture, which last was repeated every few minutes. In the fourth or fifth dose the remainder of the calomel was given, and after a few more doses free and powerful vomiting occurred, bringing along quite a quantity of tough, viscid phlegm. It is quite possible the calomel was thrown off in this vomiting, but satisfied of the fact, that in severe cases of croup there exists a very great insusceptibility to the action of any emetic, I have long been accustomed to combine more or less calomel with each or every other dose of hive syrup, and perfectly satisfied am I of the propriety and success of such a combination where great difficulty exists in producing speedy and full vomiting.

In many cases, so powerful has this insusceptibility proved, that besides four and more ounces of hive syrup, known to have been properly prepared, I have frequently added ipecacuanha, alum, and calomel in large doses, without regard to weight, producing the effect desired, nausea and powerful vomiting, and although many condemn such heroic

treatment, as I almost uniformly cure my patients with croup, without subsequent unpleasant consequences, I cannot but conclude that such practice is correct. One thing is certain, such facts outweigh all speculative notions or false apprehensions of gastro-enteritis. To resume the case, notwithstanding the frequent and full action of the emetic, I was not satisfied with the existing condition of the child, and as by this time hot water was ready, she was put into a warm mustard bath for about five minutes, during which time I rubbed with no little force the breast, while others were similarly occupied with other parts of the body. While in the bath several full doses of the medicine were given, and caused pretty free vomiting, with the ejection of much tough phlegm, affording temporary relief. The child was removed from the bath and wrapped in a large blanket, without being wiped dry, care being taken to keep every part of the body covered. Full perspiration ensued, and a mustard poultice was applied to the breast, the throat covered with flannel steeped in volatile liniment, and small doses of the medicine given every half hour. It is possible that the tough phlegm so freely thrown off may have been portions of false membrane, of which so much is said by writers on Croup, but as I have not had the misfortune of ever meeting with this membrane I will not positively assert that it was. The poultice could not be borne long on the breast in consequence of the irritation produced by the previous friction, and in its stead was placed flannel soaked in warm sweet oil. In about two hours from the commencement of the treatment there was an evident amelioration of the symptoms, and ordering small doses of the medicine to be given every half hour, with the flaxseed and gum drink when required, I left for a time.

5 P.M. Vomiting had occurred several times, the child dosing occasionally. I now gave the remainder of the calomel in a teaspoonful of the medicine and repeated small doses at intervals, depending upon the symptoms.

10 P.M. The child being much easier I was enabled to examine the chest, when I detected well marked sibilant and crepitant rattles, confirming what previously I felt certain of, that inflammation had been extended to the lungs or the large and small air tubes. From the first I was of opinion that general bleeding would not be borne well, nor at present did I think cupping or leeching advisable, but since then the more I have thought of the case, with subsequent events, the more I am inclined to believe that either general or local bleeding would have produced a good effect. As regards leeching in such cases my opinion is

rather against it, for, in consequence of the exposure incident to the application of leeches, and at times the difficulty of regulating the quantity of blood that will continue to ooze out after they have dropped off, there is a strong probability of their doing more harm than good. All are aware of the value and power of tartar emetic in combatting many inflammatory complaints; I therefore decided upon a continuance of the same course, using the same remedies, and accordingly directed them to be continued, the dose and frequency to depend upon the symptoms. For the purpose of affording my patient a chance of sleeping, as well as to allay the cough which was troublesome and frequent, I mixed two teaspoonfuls of paregoric with the same quantity of the first medicine and four teaspoonfuls of the gum drink, of which one teaspoonful was directed to be given every half hour until sleep resulted. It may not be amiss to remark at this point, that in Croup, after having subdued the more violent symptoms, I feel convinced that some preparation of opium, paregoric preferred, given in conjunction with hive syrup at bed time will generally produce a decidedly beneficial result, and frequently prevent a recurrence of the disease on the second night, an event by no means unfrequent.

13th, 7 A.M. The child passed a very comfortable night, awoke several times, when the medicine was administered. The bowels have been pretty freely moved several times. While the respiration is easier, there is still that sharp dry sound on inspiration, and coughing on trying to speak. It may be proper to remark, that from the commencement of the attack, throughout her sickness, and for many days after perfect recovery, the voice has been almost inaudible, and always accompanied by the peculiar sound noticed. The child complains of no pain, and on examination, the fauces and adjoining parts were not much inflamed. Considering her improved and doing well, I substituted the following :

R	Tart. Ant. et Potass	-	-	-	-	-	gr. ii.
	Nit. Potass	-	-	-	-	-	3ss.
	Accaciæ Pulv.	-	-	-	-	-	3ss.
	Aq. fl. Aurant	-	-	-	-	-	3ii. M.
Also,	R. Hyd. Chlor. Mit.	-	-	-	-	-	gr. xii.

In one powder. As soon as received, give one-half of the calomel in one teaspoonful of the mixture, and repeat this last every hour. Continue the applications to the throat and breast.

11 A.M. She appears somewhat improved. Continue the above, adding a small portion of the first medicine to each dose. Continue applications to breast and throat.

8 P.M. The child is not quite as well as when last seen, the usual symptoms being aggravated. This change is unintelligible, unless explained by the generally observed tendency of croup to recur with more or less violence the evening after the first attack. As a general rule, by the course of treatment which I always pursue, I rarely encounter this recurrence; but the long continuance of this disease, combined with the complication of the lungs, must be considered in a degree, if not entirely, the cause, for I must confess I have found this case more difficult to manage than any other previously treated. I gave the remaining six grains of calomel in a teaspoonful of the first medicine, and directed a teaspoonful of the same every hour, or more frequently, if demanded; also, a teaspoonful of sweet oil occasionally.

10 P.M. The child not improved; all the symptoms quite severe, though the crepitant rattle is somewhat less in intensity. I had taken with me a phial of calomel and an ounce bottle of hive syrup, which I knew had been properly prepared, and contained two grains of tartar emetic, which I was forced to use. It is unnecessary to detail the half-hourly events, let it suffice to remark that during three hours, constantly occupied with the case, I gave forty grains of calomel, all of the phial of hive syrup, besides many doses of the other medicines, with sweet oil. Repeated forcible and free vomiting occurred at intervals, the pulse was weak, the skin dry and warm part of the time, towards the last became moist, the voice, cough and inspiration rather more harsh than previously. While preparing a hot mustard bath, the symptoms became less severe, and believing that by keeping up the influence of the medicine I should control the disease, it was omitted. The flannel with oil was kept to the breasts, and that with volatile liniment to the throat as before. In an hour after this the renewed violent attack was subdued, the child appeared disposed to doze, which I encouraged by a moderate dose of paregoric combined with the medicine. The rough, hoarse inspiration was very prominent while she was sleeping, but as there was very little cough, and the breathing or expansion of the lungs was quite free, I thought and hoped that there would be no further anxiety that night. In case the child awoke, the medicine was directed to be given, more or less freely, depending upon the symptoms.

14th, 7 A.M. Thankful was I to learn that my patient had slept quietly during the greater part of the night, that she had awoke but twice, when the medicine was given. The breathing is easier, the skin moist and of natural heat, the pulse regular, though weak. The bowels

had been freely moved, and the crepitant rattle was less distinct. I directed a teaspoonful of sweet oil every hour, with a small quantity of the medicine. Continued the applications to the breast and throat, and allowed, with her usual drink, toast-water, and a little milk and water sweetened.

2 P.M. During the morning I satisfied myself that she was doing well, and now find her improved, the prominent symptoms, however, were not sufficiently overcome to preclude the necessity of medicine, and I ordered the following:

R	Tart. Ant. et Pot.	-	-	-	-	-	gr. i.
	Nit. Potass.	-	-	-	-	-	3 ss.
	Accaciæ pulv.	-	-	-	-	-	3 ss.
	Tinct Aconit	-	-	-	-	-	gtt. v.
	Aq. fl. Aurant	-	-	-	-	-	3ij. M.

Give one teaspoonful every hour, continue the usual drinks and the applications to the breast and throat, with small doses of the medicine.

8 P.M. Continues doing well; the bowels have been freely moved; she has vomited twice, without there being thrown up any phlegm. The cough has decreased materially, the fauces slightly inflamed and the tonsils rather enlarged, the breathing is almost natural, the respiratory murmur distinct and free from any rale, still we have no little roughness or hoarseness during inspiration.

15th, 8 A.M. Passed a good night, only awoke twice, when the usual medicine was given. She is very lively, desires something to eat, is playing in bed, breathing quite natural, respiratory murmur normal, everything appears natural. She coughs very seldom, is slightly hoarse, and the voice is weak and squeaking. Allowed a little more diet, and several times a day some sweet oil and half teaspoonful doses of the medicine, for although I hope that condition which produces the weakness of voice and peculiar sound on inspiration will gradually subside, yet I fear to omit all medicine.

16th. Slept well all night; says she feels well; is playing with her toys in bed; coughs very seldom; perfectly normal sound on examining the lungs; appetite good; bowels regular; allowed light diet; directed the throat to be rubbed with volatile liniment, and to take a few doses of sweet oil and the medicine during the day.

For the next few days, it being needless to continue frequent reports, she appeared well, lively, and was playing about the room all day, slept all night, ate moderately of light food, took occasional doses of sweet oil and the medicine, and but for the continuance of that same peculiar

sound so frequently noticed when inspiring, she would be considered well. That however caused her to be kept in the room, to have the throat frequently bathed with the liniment, and to continue several doses of the medicine during the day. About two o'clock in the afternoon of the 20th I found her very lively, playing about, but with rather more hoarseness of voice on inspiration, for which I ordered hive syrup to be given every hour, and in the last few doses before bed time to add a small portion of paregoric each time.

About 8 P.M. I called to see how all went on, and found her sound asleep, perfectly natural sound of lungs, had coughed more hoarsely several times during the evening. I mixed 10 grains of calomel in one teaspoonful of hive syrup, with forty drops of paregoric, and gave it, when I left for the night, directing in case she awoke or coughed that teaspoonful doses of hive syrup with small portions of paregoric should be given as frequently as might appear necessary.

21st. 8 A.M. The child slept all night, did not cough, is now up and dressed, eating a cracker. The breathing is perfectly natural, the hoarse inspiration decreased, and I could not make her cough by playing pretty roughly with her. I ordered a tablespoonful of castor oil at once, a light diet, and half a teaspoonful of hive syrup every hour or two during the day.

22d. 8 A.M. She slept well all night, the cough is trifling and quite loose, the voice is becoming more natural with less of the roughness on inspiration. She is going about the house, is very lively and quite hungry. My opinion is that she may be considered well.

It was my intention to have offered a few remarks upon the general treatment of this disease, but the length of the article admonishes me that I should not tresspass too much upon your valuable pages. The perusal of the case will sufficiently show what course of treatment I regard as applicable to severe cases of croup, and in my opinion, if all cases were regarded from the commencement, as though they would become severe, and treated accordingly, we would not have such frequent occasions of having the operation of tracheotomy performed, and many fewer deaths to be recorded. I know that many physicians object to using the hive syrup freely in this disease from fear of its injuriously affecting the bowels or perhaps producing hyperemesis. I can only say that in all the cases of croup which I have treated, I never have but in one instance, an old lady, found the least unpleasant result from its use. So far from acting upon the bowels, I am generally obliged to use pretty large doses of senna tea, or castor oil, or both to produce a free action

on the bowels, which I think highly of, after first having made a positive impression upon the disease by other means, among which copious venesection often performs a very important part.

SPECIAL SELECTIONS.

COMPLIMENTARY MEDICAL BANQUET GIVEN TO M. RICORD, AT LYONS.

There are gloomy spirits, who see everything as dark and lugubrious as their own thoughts; the moral world, if you believe them, is retrograding every day; they are incessantly repeating that everything is in a state of degeneration. If by some uncommon occurrence antiquity finds favor in their eyes, it is only that they may overwhelm the present still more. Listen to them! they may grant, perhaps, that in the time of Hippocrates all the virtues found a dwelling in the human heart, but since then, alas! all has changed. According to them, tradition is broken, Medicine has lost its brilliant halo—instead of its ancient glory they pretend to see nothing but a species of disguise, and no longer wish to recognize in it the noble remains of Hippocrates and Galen. They would willingly exclaim with the poet—

Quantum mutatus ab illo,
Hectore qui redit ex noviciis indutus Achillis!

They say they have looked everywhere in the present day, but in vain, to find some trace of those ancient virtues, that filial respect, formerly entertained by the pupil for his venerated master—that medical brotherhood, and that worthy and benevolent hospitality, which they represent as the characteristic of the Hippocratic age. It is in vain that they look for that feeling of the good and beautiful, that love of science and respect for art, which their exclusive imagination can only find in the ancient school of Cos. Their retina, obscured by I know not what evil genius, sees nothing now but egotism and indifference, petty passions and petty rivalry. In their opinion, positive philosophy has invaded and discolored everything. The past was an age of gold—the present is an age of brass. The world, from having so often heard all this, finishes by believing it. We protest loudly against these unworthy calumnies! If one of those morose critics had been present (as we had the honor of being) at the medical banquet, given on the 10th of July,

by the second capital of our kingdom, to a celebrated Parisian physician, he would have been infallibly converted to our opinion; he would have been anxious to retract those inconsiderate words, and to trample under foot those unjust prejudices to which men and things, the best regarded and best judged, come every day to give a glorious contradiction.

Lyons has given one of those solemn and brilliant festivities which is calculated to awaken the noblest sentiments in the breast, and to leave imperishable recollections in the lives of those who had the happiness to witness it. Lyons has given a splendid banquet to the chief of the syphilographic school—she entertained in him the sagacious and ingenious observer, who has thrown a light on the darkness which surrounded venereal diseases, and who has been able to raise this important specialty to a degree of consideration unknown before his time; the author whose doctrine has acquired a distinguished rank in the progress and discoveries for which our age is justly honored, who in his branch of science has placed in the hands of the French that banner which she carries at the head of all the nations of medical Europe.

The hospitality of the city of Lyons has long since been proved—it is well known in the scientific world. We have seen the entertainments given to Roux and Magendi; we have heard Messrs. Prus, Seutin, Bérard, Mélier, Clot-Bey, Dornéc, Vilerme, &c., each in his turn, boast of the hospitable reception he had met from the physicians of Lyons, but never, perhaps, has a welcome been seen so warm and animated as the present. We must confess that there are few names as popular as that of M. Ricord. Numerous guests attended this illustrious syphiligraphist at the banquet rooms of the Hôtel de Provence, and among them were the representatives of the several medical societies of our city. The Mutual Association of the Physicians of the Rhone was represented by all its members. The Medical Society by Messrs. Polimère, Rougier, Foltz, Reybard, Guilliermond, Gillebert, d'Hercourt, Mouchon, &c. L'Hôtel Dieu par Messrs. Barrier, Desgrange, Baumus, Teissile, Pomice, Chappet, &c. L'Hospice de L'Autiquaille par Messrs. Diday, Rodet, Rollet, Lacour, Bouani, &c. The Veterinary School by Professors Rey and Chaveau. The physicians of the city and faubourgs by many of the brotherhood, and especially by the rising medical generation, which distinguishes itself every day in the press by some new work, and which the schools have learned to know by the laurels they have won in the concours. Several physicians who were strangers both to the city and to the department of the Rhone were received at

this medical feast; we may mention Messrs. Venot (of Bordeaux), Calvo (of Paris), Robert (of Marseilles), Davat of (D'Aix, in Savoy), and, without doubt, many more would have been present had the entertainment not been got up so hastily. We must not forget the internes of our hospitals and the students of our medical school, this flourishing nursery from which is produced recruits for the greatest portion of the medical faculty of France; from which went, in 1832, that phalanx of young men to Marseilles on the first appearance of the cholera, and who vie with each other, when an epidemic rages, who shall be the first to combat the enemy and carry relief to suffering humanity. They also were present at this scientific manifestation. The assemblage was very imposing—a hundred guests surrounded M. Ricord. Honor to the medical faculty which knows how to sympathize with the greatness of science, and which awards those palms earned by really useful works! Honor to those who know how to merit such ovations! Physicians, I repeat, have been basely calumniated; they constitute a large and honorable family; we have often found, and in more than one place, the warmest friendship, the most benevolent cordiality, and a hospitality worthy of the olden times. The medical faculty forms a people apart, which is endowed with the purest moral qualities, which has its patriotic and ardent sympathies, its fields of battle and its glories. It is capable of the most self-sacrificing devotion; in fact, no people have given more sublime examples of abnegation. But it is necessary to know how to touch this sympathetic cord—how to become worthy of this homage, for medicine is jealous and proud of the honor it confers.

At the close of this great and cordial manifestation, M. Diday, acting as interpreter of the feelings easy to be discovered in the bosoms of all present, gave the first toast—"To the illustrious chief of the Syphilographic School." After a brilliant and witty introduction, full of feeling, which we regret our incapacity to render with justice, and in which he duly acknowledged his merit as chief of the school, his influence as a professor, and his honor as a man, he ended with these words: "I hope that I shall worthily represent my colleagues, as I am convinced that I am only in advance of the future generation in offering to our illustrious guest, under the form of a libation, our sentiments and our good wishes, in saying welcome. In the name of much suffering that has been relieved, of so many prejudices that have been overcome, so much quackery unveiled and rendered impotent—in the name of the syphilographic art, elevated to the first rank among branches of the healing art—in the name of the medical police, which has become a

real and a social safeguard—in the name of so much mercury, philanthropically returned to its use in the arts—of so many physicians forcibly enlightened, notwithstanding their determined opposition—to him whose name recalls one of the most important and complete revolutions ever accomplished in the annals of medical science. To RICORD !”

This toast was received with the most enthusiastic acclamations. M. Rodet’s remark, that science and humanity owe much to the doctrine which, although violently attacked, had given a solution to many problems that had previously remained inscrutable, was also well received.

M. Bune then spoke : “ Sir, I speak the sentiments of the medical youth of Lyons, and I trust my words will not require eloquence to make you receive our homage, our sympathy, and our admiration. Our enthusiasm for an illustrious master has something in it, so truthful and so natural, that its expression cannot fail to find its way to your heart. We are proud, sir, to see that you have been willing to come among us, that we may have a share of that popularity so constant, so unanimous, and so well merited. You have acquired it by genius that creates, instruction that enlightens, and benevolence that protects—three bright stars that the medical youth salutes in your person this day.”

This toast was received with applause, as was also one given by M. Girand to the foreign physician, whom the faculty of Lyons was proud to receive. M. Ricord replied (as he alone knows how to reply) with voice, gesture and emotion, all clear, lucid and communicative, expressing his sentiments of gratitude and devoted fraternity—promises which his past actions forbid us to doubt for the future. He had hardly finished when the most rapturous applause was heard from all parts of the room.

A last surprise was reserved for us; opposite the illustrious syphiligraphist rose a guest with a pleasing and gentle countenance, a smile full of good-nature and feeling. He sang an original ode dedicated to M. Ricord. Silence reigned as if by enchantment in the whole assembly, each couplet was received with loud applause, the emotion was general; he shared with M. Ricord the triumph of the day. M. Venot, of Bordeaux, ought to feel justly proud of the profound and sympathetic impression he produced on the assembly; every one was anxious to express to him a sense of the pleasure bestowed by taking his hand, embracing and felicitating him. M. Ricord was not the least moved among them.

A day so well employed was followed by a morrow worthy of it. The medical students had begged as a favor to receive from this great master

one of those precious and interesting lectures the monopoly of which the Lindens of the Hôpital du Midi, should resign for that day. He remained among us expressly to fulfil his promise, and on Monday morning in the amphitheatre of our medical school and in presence of a numerous audience, among whom we noticed the most celebrated members of the medical faculty of Lyons, he delivered a lecture, in which he surpassed his usual efforts and revealed himself under a new light even to those who had heard him oftenest. It was an exposure of his whole doctrine, not in the beaten path of a didactic treatise, but in a kind of imaginative recital, ornamented with brilliant touches, witty anecdotes and animated with that caustic vein peculiar to him, but sustained on this occasion, within those limits of rare moderation in which he can express himself with so much grace and purity. He had the art of passing in review all his doctrines, showing them in the most favorable light as a systematic whole, not made up of arbitrary laws in defiance of nature and of conflicting statements—but professing them to be theories based on facts and solving better than previous ones those problems which experience has suggested and the result of which must influence the different modes of treatment—nor did he represent his dogmas as eternal and immutable but acknowledged that love of progress which had caused the success of his system—he would not tie down science to a Procrustian bed.

This splendid extemporaneous discourse was listened to with the most profound attention, and we can safely say that the audience remained as if under a spell for nearly two hours. It seemed as if M. Ricord wished to justify by another triumph the one accorded to him on the previous day. We believe that we give expression to the wishes of all in hoping that M. Ricord will publish his lecture on syphilography delivered at Lyons.

The medical world will learn we are sure with much satisfaction that the celebrated surgeon of the Hôpital du Midi has promised during his sojourn among us to collect the results of his researches in a complete treatise on Venereal Diseases. The author of these lines wishes the whole medical world to witness the promise in order that Mr. Ricord may not withdraw his word so solemnly and publicly pledged. If we may express an opinion, we would be content with a short treatise and a small volume in order to have it more speedily and more surely.

The banquet thus offered in Lyons to the celebrated teacher will leave after it many pleasing reminiscences. May science soon become indebted to him for a work which they have now the right to expect.

MEMOIR ON THE SIMPLE ULCER OF THE STOMACH.

A Paper read before the Institute of France by MR. CRUVEILHIER, Professor of Pathological Anatomy of the Medical Faculty of Paris.

The subject of the memoir which I now lay before the Academy is a peculiar disease of the stomach, which is often mistaken in practice for the cancerous affection of the same organ, sometimes for gastralgia, or the various forms of chronic gastritis.

This disease, or rather this lesion, the precise nature of which could be ascertained by pathological anatomy, is styled in the following pages the simple ulcer, or chronic simple ulcer of the stomach, in order to indicate on the one hand, its form which is that of an ulcer, generally chronic, and on the other hand its benignity, in opposition to the incurability and malignancy of the cancerous ulcer of the stomach. A general description of the simple ulcer of the stomach must comprehend,

1. Its anatomical character, in order that it may be classed among the different varieties of disease.
2. Its clinical character, which must teach us how to recognize this disease at the bed side of the patient.
3. Its therapeutical character, which will establish not only its curability, but even the tendency which nature has to perform a cure provided all irritating treatment be avoided.

ANATOMICAL CHARACTER.—Anatomically considered, the simple ulcer of the stomach presents a loss of substance, generally circular with an abrupt, indurated edge, varying in size from one to several lines in diameter.

The simple ulcer is generally solitary, occupying for the most part either the posterior parietes of the stomach, or its lesser curvature, and as a general thing it is closer to the pyloric than to the cardiac orifice; sometimes it occupies the pylorus itself, presenting a sort of circular zone.

The simple ulcer of the stomach extends itself at the same time in depth and surface, and when it has overcome the resistance opposed by the fibrous tunic of the stomach, then the muscular coat and finally the peritoneal covering are soon worn by the ulcerative process, causing perforation of the stomach and death by introducing into the peritoneum divers gases and alimentary matters, unless the effect of the perforation be anticipated and prevented by some providential adherence to surrounding viscera. The frequent perforation of the

stomach as a consequence of this ulcer has suggested to professor Rokitsanski the name by which he has designated it, viz, the perforating ulcer of the stomach.

The series of facts has enabled me to observe all the degrees of the perforating ulcer. In the first degree the ulceration is limited to the mucous membrane, and generally consists of an erosion of the follicles. In the second degree the fibrous tunic which is the true frame work of the stomach has been invaded and destroyed; we find at the bottom of the ulcer the muscular fibres which are exposed. In the third degree the muscular fibre has disappeared, and, of all the coats of the stomach, the peritoneal covering stands alone. In the fourth degree, the thickness of the stomach is destroyed, so that it may be replaced in that point by the surrounding organs with which it has contracted intimate adhesions.

The simple chronic ulcer of the stomach presents but a coarse resemblance to the cancerous ulcer, with which it is generally confounded. The indurated base around the former offers none of the attributes of the schirrhous or encephaloid cancer; we do not find that hypertrophy of surrounding tissues which almost always accompanies cancer, and which has been so often taken for the cancerous degeneration itself. Moreover the best proof that the simple chronic ulcer of the stomach is not cancerous, is its curability. This curability of the simple ulcer of the stomach has also been proved by pathological anatomy, for it has shown the texture of the cicatrices resulting from the healing process, whereas those very cicatrices have been considered as belonging to the schirrhous cancer.

The first case of simple ulcer of the stomach which came under my observation had been sent to me as a case of cancer. The patient, who was a learned Greek scholar, had been successively treated by several physicians, who all supposed him to be affected with cancer of the stomach, as even, at the autopsy, the cicatrized ulcer was looked upon as schirrhous cancer.

It is, therefore, important to study the nature of the cicatrix resulting from the simple ulcer of the stomach. These cicatrices are made up of fibrous tissue, being constituted by a coating, more or less thick, of new fibres, covering the loss of substance. It is incorrect to say that the loss of substance in mucous membrane is replaced by another mucous membrane, of new formation. Those cicatrices have never offered the least structural characteristic of mucous membranes, no villi, no follicles are to be seen, unless some of these have been left standing by the

ulceration. I have not had an opportunity of ascertaining if the cicatrix was covered by an epithelium of the same kind as that of the stomach. The mucous membrane ceases abruptly at the circumference in the form of a dense circular ridge.

The ulcers of the stomach heal in the same way as any loss of substance on the external tegument, viz., by a double mechanism. 1st, bringing together the edges of the ulcer by puckering them up, and thus diminishing the circumference of the abraded surface, which accounts for the radiated appearance of the cicatrix. And, secondly, the formation of an entirely new fibrous tissue constituting the cicatrix.

When the loss of substance is inconsiderable, it is repaired according to the first mechanism, and then the cicatrix in the stomach is represented by a line or a small loop with puckered edges and radiating folds. On the contrary, large abrasions leave a circular depression, as if made with a punch, with a fibrous centre, limited by a ridge, more or less elevated, formed by the mucous membrane, and quite distinct from the tissue of the cicatrix, the line of demarcation being well marked. The simple ulcer is sometimes seen, after having destroyed successively all the coats of the stomach, to pass the limits of that organ and extend its ulceration to those adjoining tissues which have become adherent to the peritoneal covering of the stomach. Thus the pancreas is generally called upon to repair the breach in the stomach, because the posterior wall of the stomach is mostly the seat of the simple ulcer. Thus, also, the liver repairs the loss of substance in the anterior part of the lesser curvature. I have also seen the spleen stop up a hole which perforated the lesser extremity of the stomach, as also the transverse colon, replacing the corresponding part of the greater curvature.

In a case presented to the Anatomical Society by M. Barth, in the month of February, 1851, a perforation was seen in the anterior wall of the stomach measuring nearly an inch in diameter, but the loss of substance was replaced by the anterior wall of the abdomen, and by the posterior part of the sternum which was already attacked by the ulcer. The xiphoid appendage was thus posteriorly deprived of its periosteum, and even destroyed in some points, so that if this old woman, the subject of the lesion, had lived a little longer, the whole appendix would have been completely destroyed; the soft parts perforated by the ulcerative process, and thus a gastro-cutaneous fistula would have been produced. In another case which we observed, the missing parts had been replaced—first, above and in front of the liver, of which the color appeared through the cicatrix; second, behind by the pancreas, easily known by

its granular appearance; third, in front and below by the arch of the colon, which was puckered at this place.

And not only do the viscera which are in the neighborhood of the stomach thus repair the loss of substance occasioned by ulceration, but having become a constituent part of the organ, they also participate in the ulcerative process, become eroded, and lose their own substance, and are finally perforated, if they are tubular organs. Thus it is that I have seen a simple chronic ulcer of the stomach, occupying the great curve of the stomach, open into the transverse colon; another ulcer of the same kind opened into the duodenum; and lastly, a simple ulcer of the stomach communicated with the diaphragm into the left bronchial tube.

ON THE SUBSEQUENT ULCERATION OF THE CICATRIX, PRODUCED BY THE SIMPLE ULCER.—A most important view under which the cicatrix of the stomach must be viewed is the facility with which they become the seat of a subsequent ulcerative process. The fibrous cicatricious tissue of the stomach, so different from the mucous membrane, by its want of vitality and its powers of resistance to the numerous causes of irritation to which it is exposed, is prone to inflammation, and once inflamed, ulceration soon follows, with all the symptoms of the simple ulcer; hence those frequent returns of the same disease, which I have seen take place one year, two years, five years, and even eight years after a cure that had appeared final. And thus, if the most severe treatment does not put a stop to the ulcerative process, the patient may die from perforation or hemorrhage.. Perforation and hemorrhage are the principal accidents, and the great cause of danger arising from a simple ulcer of the stomach, and the danger continues even after the cicatrix is formed, so that perforation or hemorrhage may take place either primitively, that is to say, during the period of ulceration, or consecutively, that is to say, after the formation of the cicatrix.

OF THE SPONTANEOUS PERFORATION OF THE STOMACH BY SIMPLE ULCERATION.—The simple ulcer appears to me the most frequent cause of the spontaneous perforation of the Stomach. On examining critically the principal observations which have been published on the spontaneous perforation of that organ, I have easily recognized in the description of the post-mortem appearances all the characters of the simple acute, or chronic ulcer of the stomach. Such, for instance is the case recorded of that learned chemist d'Arcet, who at 72 years of age, after suffering during six months from difficult digestion, died from a spontaneous perforation of the stomach which occurred after a light meal.

These rapidly fatal accidents which are the consequence of perfora-

tion of the stomach come on very suddenly and sometimes immediately after taking into the stomach some food or drink, so that it has often given rise to a suspicion of poison.

The most remarkable case of the kind which have I have ever seen is that of a coal merchant, a man of athletic frame, age 23 years, who, while carrying a bag of coal, stopped on his way at a wine merchant's to drink a glass of wine; after a few minutes, he was taken with the most violent colics; he received the first medical assistance at his own house, but was carried the next day in a dying state to the *Maison de Sante*, faubourg St. Denis, where I was at the time assistant to our venerable colleague Mr. Duneril. This was on the 5th December, 1829. The patient presented all the symptoms of peritonitis, resulting from perforation and died in full possession of his reason three hours after entering the hospital. I had however, obtained from himself an important piece of information, viz: that he had been suffering from his stomach for some months, and that his digestion was very tedious. The fraternity of coal merchants were convinced that their comrade had been poisoned, and that the glass of wine he had taken immediately before the accident was the vehicle which contained the poison; they immediately determined to prosecute the wine merchant, and desired that the post-mortem examination should be made before a deputation of of their order.

It turned out to be, as I had previously announced, a case of spontaneous perforation by simple ulceration of the stomach. A remarkable circumstance was that this ulcer, occupying the pyloric extremity of the stomach, was in the form of a zone. The centre of the ulceration had invaded the muscular fibres of the stomach, and the perforation had taken place at a point where those fibres were destroyed in such a manner that the coats of the stomach reduced to their peritoneal covering had given way under a slight effort.

This is an example of primitive perforation by the simple ulcer of the stomach, by which I mean that the perforation occurred during the progressive stage of the ulcer; but consecutive perforation may also happen when the ulcer is completely cicatrized. I may even say that the latter accident is the most frequent, so that we sometimes observe a chronic ulcer completely cicatrized except in a single point where the ulceration continued, or sometimes the ulcerative process invades an old cicatrix which is destroyed with more or less rapidity.

We must not confound the latter case with that of a new ulcer which may be located near an old scar.

I consider as true the following proposition, viz: the spontaneous perforation of the stomach is incomparably more frequent in simple ulcerations of the stomach than in the cancerous form; in fact, perforation in cancer of the stomach is a most rare occurrence if it has ever been observed.

I now pass to the second class of accidents from simple ulcer of the stomach, viz:

HEMORRHAGE.—We may divide hemorrhages resulting from the simple ulceration of the stomach into two classes; that is to say, it is *primitive* when it occurs during the period of progress of the ulcer, it is *consecutive* when it takes place after the complete formation of the cicatrix. We might also divide hemorrhages of the stomach according to the quantity of blood lost, which may be *small*, *moderate* or *fatal*.

A small hemorrhage is almost inevitable in the simple ulcer of the stomach, either in its acute or chronic stage, until cicatrization takes place. If we examine under the surface of pure water, either with the naked eye or with a magnifying glass, the appearance of a simple ulcer of the stomach, we shall see a number of small vessels open, with their edges smoothly cut, some of them being stopped by solid clots firmly adherent, others on the contrary containing soft clots which are evacuated by the slightest touch. The latter give rise to those small but repeated hemorrhages in consequence of which the blood thus poured out is mixed with the food, and produces those dark colored stools, or the black vomitings which are often the first revealing symptoms of the disease. But it sometimes happens that the simple ulcer of the stomach comes in contact with a large artery, destroys its coats and perforates the vessel; then unless a very solid clot prevents the blood from being poured out, the vomitings and the passages may contain pure blood, in various quantities according to the size of the vessel, and thus hemorrhage may become rapidly fatal.

I have seen a case in which the patient died from hemorrhage without discharging a single drop of blood, but at the post-mortem examination I found the stomach distended by an enormous quantity of coagulated blood, the large and small intestines being equally full. A perforation of the splenic artery had been the cause of hemorrhage. Patients affected with this disease generally die from the repeated vomitings, or the frequent bloody passages, which reduce them to the last degree of anemia and marasmus.

And here I must repeat, what I have already said relative to perforation, viz.: that death by hemorrhage is much more frequent as a con-

sequence of the simple ulcer than of the cancerous affection of the stomach.

The yellow elastic tissue or proper tunic of the arteries escapes many organic diseases by its very want of vitality, resisting at times even cancer itself, but it cannot withstand the disorganizing process so aptly called (by Hunter,) *ulcerative inflammation*, for that respects no tissue, and is nothing more than a species of erosion, or molecular gangrene, similar to that produced by the corrosive action of different liquids, destroying layer after layer in concentric zones. We not unfrequently see an ulcer of the stomach perfectly healed, except in a point corresponding to some large arterial vessel. Now according to the law that all loss of substance in an artery can be permanently cured only by an entire obliteration, it may happen that if the clot is not firmly adherent it may detach itself and bring on hemorrhage sufficient to cause immediate death.

Sometimes again the ulcerative process stops at the external surface of an artery of which the inner tunics are yet intact; then cicatrization having taken place, the arterial vessel is in a manner included in the cicatrix.

Now if ulcerative inflammation happens to seize upon this cicatrix, one of its first effects will be the erosion and perforation of the artery, another way again of producing fatal hemorrhage.

The ordinary source of those frightful hemorrhages from the stomach consequent upon simple ulceration, is the splenic artery, a large vessel which is situated behind the stomach, along the superior border of the pancreas where it describes a serpentine course, which brings it in contact with the stomach in many points.

I have also seen a fatal case of gastrorrhagia produced by the perforation of the coronary artery of the stomach. The size of the gastro-epiploic arteries is sufficient to cause death in case they be perforated, but we know that the simple ulcer seldom occupies the greater curvature of the stomach.

In order to complete the history of this disease, we have yet to examine its clinical characters, and means of diagnosis, and also the therapeutical agents by which it can be treated successfully. Those points will form the subject of another lecture.

A. A. P.

EDITORIAL AND MISCELLANEOUS.

"A COURSE OF LECTURES ON THE THEORY AND PRACTICE OF OBSTETRICS. By *W. Tyler Smith, M.D.*, Physician-Accoucheur to St. Mary's Hospital," &c.—In the *Lancet* for March, 1856, we find the first and second lectures of a course being delivered by Dr. Tyler Smith, on the Theory and Practice of Obstetrics. Our limits will not warrant the transcription of the entire lectures, but we undertake the task of furnishing a summary of the opinions of this distinguished obstetrician as regularly as they may appear in the above-mentioned journal. We are sure that such an analysis of the views of one of the most eminent accoucheurs and writers of the present day must prove of especial interest to our friends in the country, who cannot obtain ready access to the pages of foreign journals.

Lecture I.—On Generation.—Dr. Smith discards the idea of spontaneous generation, even in the very lowest order of animal life. He cites the experiments of Schwann and Schultze to show that the microscopical infusoria, hitherto thought to spring into existence spontaneously from vegetable infusions, are really derived from the atmosphere which gains access to the fluid. These experimenters passed the air which was to be brought in contact with the infusions (previously boiled) through caustic potash, strong sulphuric acid, or iron tubes heated to redness, and the result was, that no infusoria were produced; yet when air which had undergone no such process was admitted, the "rapid development of animalcules occurred."

He contends that the same idea will hold good in relation to the entozoa, the spontaneous generation of which has seemed to be most decidedly presumptive. It is now known that these animals possess "a special boring apparatus," by means of which they are enabled to penetrate the tissues without leaving even a trace of their operations.

Dr. S. mentions the gregarinæ as the most simple form of animal life. He says, "The gregarinæ consists essentially of a single cell, or of a cell-wall, with its contained fluid, and a central nucleus. It moves by contraction of its cell-wall, and only differs from a vegetable cell by its contractility and its solubility in acetic acid."

The simplest form of reproduction is that of spontaneous fission, or fissiparous generation, viz., "a single unicellular animalcule divides into two or more cells, which, after this division, become similar to the parent cell." The next form of generation is the gemmiparous, in which

the offspring arise from the parent in the shape of buds, which, acquiring a similar shape to the parent, separate from it and assume an independent existence. Dr. S. compares these two forms of generation with reproduction in the higher animals, viz., "In oviparous animals and mammalia it may be said that the dehiscence of the ovule or of the impregnated ovum, from the ovarium, is a kind of fission. A still closer analogy to the phenomena of fission is found in the early changes in the interior of the mammalian ovum after impregnation, and indeed of the ovum of all animals multiplying by sexual generation. These changes are similar to those which have been referred to as occurring in the unicellular infusoria. That which will hereafter have to be described as the segmentation or cleavage of the yolk, consists in the division and subdivision of the embryo cells, and is almost identical with the multiple fission of the *chlamydomonas*—an analogy first pointed out by the late Dr. Martin Barry. The only difference is, that in the *chlamydomonas* and gregarina the divisions and subdivisions produce independent and perfect animals; whereas in the mammalian ovum the fission results in a mass of germ cells, intended to pass on to higher developments. In animals the subject of sexual generation, the male element is also formed by the rupture of the primary germ cells secreted by the testes, and the conversion of their nuclear matter into spermatozoa, which may, in fact, be considered as secondary germ cells." Again, "In mammalia the extremities of the fœtus are always formed by budding or gemmation. In some of the remarkable cases of spontaneous amputation of limbs in utero, first investigated by Dr. Montgomery and Professor Simpson, the amputated limb is found in the uterus, and from the stump small or rudimentary fingers or toes are seen to be growing, which remain visible in after life."

There are two other forms of generation, the oviparous and viviparous, the latter being peculiar to mammalia and man; and the highest order of viviparous generation is found in the human species.

In treating of that strange species of generation called parthogenesis, or virgin procreation, Dr. S. points out the relation between this phenomenon in the lower order of animals and the fact of a widow, a second time married, bearing children, which strikingly resemble the first husband.

Lecture II.—This lecture is devoted to a consideration of the "External Parts of Generation." Under this head are mentioned "the mons veneris, the labia majora and minora, the clitoris, the hymen or caruncule myrtiformes, the perinæum, the vagina, and the mammæ."

In other words, Dr. S. considers those as "external" which are principally "concerned in coitus," and those "internal" which are "employed in the development of the ovum."

He says that the hair of the mons veneris is generally short and curled, but that he has observed it to be sometimes straight, and longer or shorter than usual, in sterile women—"this condition being indicative of a feeble development of the organs of generation."

The clitoris he regards as the chief seat of sexual sensibility. In hysterical females it is sometimes subject to constant erection, and in this condition it is often difficult or impossible to pass urine; hence the frequent indication for the use of the catheter in such subjects.

Rupture of the hymen is by no means necessary to conception, as impregnation is known to occur through the cribriform hymen, or when only a very small aperture exists. There is a considerable amount of contractile tissue in the situation of the carunculæ, and in some cases the irritation and spasmodic painful contraction at this point is so great as to render intercourse difficult or impossible long after marriage."

"The vulvo-vaginal glands secrete a clear albuminous mucus of a penetrating odor during intercourse, which Huguier and Scanzoni believe can be ejaculated by the involuntary contractions of the neighboring muscles. These glands are considered the analogues of Cowper's glands in the male."

Dr. S. has failed to find any large number of glands, except at the outlet of the vagina and he believes the mucus of the canal to be produced by the epithelium. The secretion is acid, is serviceable in preserving the fluidity of the menstrual discharge, and prevents the decomposition of coagula by an inherent antiseptic power. "The chief functions of the vagina are as an organ of sensation and introception, and as a canal for the passage of the fœtus and the catamenial secretion."

Dr. S. believes in the doctrine of the sexual orgasm of the female, and affirms that, "It begins in the clitoris, and ends in an orgasm or paroxysm of sensation." He is in doubt whether there is any ejaculation of the secretion of the vulvo-vaginal glands, as asserted by Huguier; and he is positive that the orgasm is not at all necessary to conception, since women to whom Heberden applied the term "frigida" conceived as well as others. He maintains that impregnation implies the uniting of the spermatozoa and the ovule, which could not take place at the moment of coitus. "The union of the male and female

elements of reproduction in the uterus or fallopian tubes is no more attended by sensation than the conjugation of the gregarina."

WHAT CONSTITUTES A SURGEON?—We cannot forbear offering our readers some items of very wholesome advice, extracted from an introductory lecture recently delivered by Mr. Jas. Syme, Professor of Clinical Surgery in the University of Edinburgh. The lecturer was addressing a class of "students," it is true, but the man of grey hairs might have heard him with profit.

Mr. Syme insists on intimate "acquaintance with the form, structure and relation of parts, which are obvious to the unaided senses of sight and touch," as of primary importance; and, although "no enemy to the microscope," he deprecates the existing inclination towards "minute investigation," to the neglect of the former. He very aptly compares this rather fashionable mode of study to the effort of a man to learn "the geographical features of a country by counting the particles of sand on the sea-beach."

A thorough comprehension of what is satisfactorily demonstrated in physiology, before diving into the "obscure and doubtful," is next inculcated.

Next, he urges the fallacy of "trusting to books or lectures, with their drawings and descriptions," when it is possible to study morbid specimens in the "dead house."

Trusting to the difficulties which surround the beginner on account of the diversity of practice amongst the so-called authorities, he says:—"Let me therefore, beg that you will never adopt as your own the opinions of others, merely because they appear in print, or are promulgated from a Professor's chair. Regard prejudices as your worst enemies, and believe nothing that has not a foundation in reason."

Mr. Syme inveighs heavily against the too great importance attached to manual dexterity in surgery, and says—"It has no real existence in surgery so far as the overcoming of mechanical difficulties is concerned. The manual duty of a surgeon may be compared to that required for steering a vessel, where there is little difficulty in turning the wheel, while the direction in which it is turned determines the fate of the ship and all on board. The result of an operation, in so far as its execution is concerned, depends on knowing what to do, when to do it, and how to do it."

"You may be assured that there are few more dangerous members of society than those empty-headed operators who claim confidence merely

on the ground of possessing "good hands." They are easily recognized by their simpering and swaggering and flourishing of their knives, as if the sole object of an operation were to make incisions, without reference to the consequences."

The lecturer's remarks on "the duties of a clinical teacher" are, also, most wholesome. He acknowledges the great importance of clinical teachings, but points out the fallacy attending the too common mode of imparting this sort of information. He shows that lectures at the *bed-side* can only be valuable when delivered to a few individuals; and he deprecates the plan of making the uninitiated student "investigate the cases of patients with whose ailments they are unacquainted." He says: "I bring the patients before you, and show the process of investigation by which the ailment of each is ascertained, and then explaining the nature of the derangement, again point out the symptoms that proceed from it."

"The performance of operations is apt to exert a delusive influence over the surgical student, who, when he hurries from hospital to hospital in quest of such spectacles, may suppose that he is thereby qualifying himself for the practice of his profession; but, in truth, no advantage can be acquired in this way; and the desire of excitement by a bloody scene might as well be gratified in the slaughter-house, where the slaying of pigs and the flaying of sheep would exhibit far more dexterity than can ever be witnessed in a metropolitan hospital. It is only when the nature of a case being fully known, the object of an operation required for its remedy is clearly understood, the mode of proceeding distinctly described, and the effects faithfully explained, that any improvement can be derived from the operating theatre."

STRAMONIUM IN DYSMENORRHOÆ.—In the March, 1856, No. of the "Atlanta Medical and Surgical Journal" we notice a very interesting communication from C. W. Ashby, M.D., of Alexandria, Va., on the subject of the use of stramonium in dysmenorrhœ. Dr. A. recommends it only in membranous dysmenorrhœ, and gives the remedy in form of extract, in connection with camphor and morphine. The dose is one-quarter to one-half of a grain, three times daily for eight or ten days previous to the anticipated menstrual period, and in same quantity during the existence of the discharge. The quantity and frequency of the repetition of the remedy must be regulated, too, by its effect on the pupil. Laxatives and fomentations are, also, advised as adjuvants.

Dr. Ashby denies the *anodyne* effect of stramonium in these cases,

and intimates a belief in its possessing a power over the Fallopian tubes and cervix uteri, identical with that which it is known to have over the pupil. Why not? *Nous verrons.*

LECTURES ON EXPERIMENTAL PHYSIOLOGY.—We beg leave to direct especial attention to the series of Lectures on Experimental Physiology now being published in our new volume. All who take an interest in physiological research (and who does not?) must be deeply interested in the perusal of this thorough analysis of the unrivalled lectures of Bernard. To say that great praise is due Dr. Peniston for the masterly manner in which he furnishes these lectures is but a poor requital for the great obligations under which he has placed us and our patrons. Being both a French and an English scholar, he has most fully succeeded in placing us, as it were, in the presence of the author of the lectures.

A CURIOUS TYPOGRAPHIC ERROR.—“The citizens of Charleston have had manufactured twelve elegant goblets for the physicians who went to Norfolk and Portsmouth from that city during the yellow fever. The goblets contain the corporate arms of Charleston and Norfolk.”—*Daily paper.*

Now, we frankly acknowledge that we did not see the manuscript before it was placed in the hands of the printer, but there cannot be a doubt that it was intended to read thus :—

“The citizens of Norfolk and Portsmouth have had manufactured twelve elegant goblets for the physicians who went to those distressed cities from Charleston during the yellow fever. The goblets contain the corporate arms of Norfolk, Portsmouth and Charleston.”

TARTARIZED ANTIMONY IN RIGID OS UTERI.—Dr. Young, in the *Edinburg Medical journal* for January, 1856, recommends the use of injections of a solution of tartarized antimony to overcome rigidity of the os uteri in labor. Dr. H. R. Storer, of Boston, corroborates the views of Dr. Young by report of a case in the *Boston Medical and Surgical Journal* for Feb. 14th ult. The enema recommended is one grain of tartarized antimony to six ounces of water.

ABDOMINAL SPRING PESSARY OF DR. J. MC F. GASTON.—We are in receipt of Dr. Gaston's pamphlet containing cuts of and remarks about his Abdominal Spring Pessary. So far as we can judge from these

data the instrument appears to be ingenious, and it may be very useful. If Dr. Gaston desires the positive expression of professional opinion on the subject, however, he must allow us the opportunity of *testing* the instrument.

BOOKS AND PAMPHLETS RECEIVED.

"Quarterly Summary of the Transactions of the College of Physicians of Philadelphia. From Aug. 2, 1854, to Oct. 4, 1854, inclusive."

"Annual Report of the Auditor of Public Accounts to the Legislature of Louisiana."

"American Veterinary Journal," edited by George H. Dadd, M.D. Boston.

"Report of the Pennsylvania Hospital for the Insane, for the year 1855. By Thomas S. Kirkbride, M.D., physician to the institution." The perusal of Dr. Kirkbride's Report has afforded us great pleasure, and we tender him our thanks for his kind attention.

"Annual Catalogue of the Trustees, Faculty and Students of the Medical College of the State of South Carolina, 1855-56."

"An Essay on Intermittent and Billious Remittent Fevers, with their Pathological Relation to Ozone. By E. S. Gaillard, M.D." We are indebted to the author for a copy of this very interesting pamphlet.

"Treatment of Displacements of the Uterus with Abdominal Spring Pessary. By J. Mc F. Gaston, M.D., Columbia, S.C." From the author.

We are indebted to the editors of the "Medical Examiner," "Charleston Medical Journal and Review," "Nashville Journal of Medicine and Surgery," "New Hampshire Journal of Medicine," and "New York Journal of Medicine" for missing numbers, and will be pleased to reciprocate the favor at any time.

"A Manual of the Practice of Medicine, by George Hilario Barlow, M.A. and M.D., Cantab: with additions by D. Francis Condie, M.D." Also, "Budd on Diseases of the Stomach." The above are from the press of Blanchard and Lea, and have been sent us by the publishers through T. L. White, of Canal street. We will notice them more fully in our next number.

NEW EXCHANGES.—"The Peninsular Journal of Medicine, &c., for Feb., 1856. Edited by Zina Pitcher, M.D., and A. B. Palmer, M.D., assisted by Wm. Brodie, M.D., and Edmund P. Christian, M.D."—Detroit.

"Southern Journal of the Medical and Physical Sciences. Edited by Richard S. Curry, M.D."—Knoxville, Tenn.

"The Western Lancet." Edited by T. Wood, M.D., Cincinnati.

The following communication has been received from Prof. Thomas Hunt of the Medical Department of the University of Louisiana.

It will be seen that the annual commencement of the Medical College in this city took place on the 29th of March, when sixty-five young gentlemen received the degree of M.D. The valedictory was delivered by Dr. John J. Castellanos, who acquitted himself very handsomely. Prof. Hunt then addressed the class on the part of the faculty in his usual felicitous manner.—EDS.

UNIVERSITY OF LOUISIANA,
MEDICAL DEPARTMENT.

The degree of Doctor in Medicine was conferred on Saturday, March 29th, 1856, upon the following gentlemen :

Spartan Q. Leister	-	-	-	-	-	Texas.
James P. Odineal	-	-	-	-	-	Mississippi.
Epaminondas N. Gary,	-	-	-	-	-	Alabama.
Joseph A. Landry,	-	-	-	-	-	Louisiana.
Albert H. Cage,	-	-	-	-	-	Mississippi.
William M. Mobley,	-	-	-	-	-	Alabama.
John S. Fenner,	-	-	-	-	-	Tennessee.
Robert O. Butler,	-	-	-	-	-	Louisiana.
Marion M. Griffin,	-	-	-	-	-	Mississippi.
Joseph B. W. Penrose,	-	-	-	-	-	Louisiana.
Benjamin A. H. Massingale	-	-	-	-	-	Mississippi.
James D. Hendrick	-	-	-	-	-	Louisiana.
Allen Newton,	-	-	-	-	-	Arkansas.
Howell H. Shields,	-	-	-	-	-	Mississippi.
Elijah M. Graves,	-	-	-	-	-	Missouri.
Joseph R. McAfee,	-	-	-	-	-	Louisiana.
Andrew V. Woods,	-	-	-	-	-	Louisiana.
Lucius F. Rowland,	-	-	-	-	-	Arkansas.
Elias J. Beall,	-	-	-	-	-	Texas.
Joseph L. Estorge,	-	-	-	-	-	Louisiana.
Washington F. Coates,	-	-	-	-	-	Arkansas.
Daniel F. McInnis,	-	-	-	-	-	Mississippi.
Dorsinos De Blanc,	-	-	-	-	-	Louisiana.
John W. Moore,	-	-	-	-	-	Texas.

John Y. Baylis,	-	-	-	-	Mississippi.
Lewis T. Chapman,	-	-	-	-	Mississippi.
Robert W. Payne,	-	-	-	-	Mississippi.
Benjamin S. Haw,	-	-	-	-	Louisiana.
Nicholas A. Corry,	-	-	-	-	Louisiana.
A. E. Thompson,	-	-	-	-	Mississippi.
James G. Forster,	-	-	-	-	Alabama.
William W. Morgan,	-	-	-	-	Alabama.
Josephus F. Griffin,	-	-	-	-	Louisiana.
Maryatt H. Watkins,	-	-	-	-	Mississippi.
John W. Crisler,	-	-	-	-	Mississippi.
William M. McGill,	-	-	-	-	Alabama.
Louis A. Burgess,	-	-	-	-	Louisiana.
Francis D. Young,	-	-	-	-	Kentucky.
Washington C. Allen,	-	-	-	-	Mississippi.
William W. McMillan,	-	-	-	-	Alabama.
Andrew J. Odom,	-	-	-	-	Alabama.
William P. Riddell,	-	-	-	-	Louisiana.
John W. Clement,	-	-	-	-	Alabama.
Thaddeus H. Pennington,	-	-	-	-	Louisiana.
James M. Doby,	-	-	-	-	Alabama.
James D. Terrell,	-	-	-	-	Mississippi.
John S. Murphy,	-	-	-	-	Louisiana.
George W. A. Robards,	-	-	-	-	Louisiana.
Boulds B. Baker,	-	-	-	-	Texas.
Rufus F. Gill,	-	-	-	-	Alabama.
John A. Livingston,	-	-	-	-	Arkansas.
Edmund E. Smart,	-	-	-	-	Louisiana.
Alexander McCaskill,	-	-	-	-	Alabama.
William R. Perkins,	-	-	-	-	Alabama.
Robert W. Mitchell,	-	-	-	-	Mississippi.
Charles O. Helwig,	-	-	-	-	Louisiana.
George W. Friou,	-	-	-	-	Louisiana.
Henry P. Sauvé,	-	-	-	-	Louisiana.
John J. Castellanos,	-	-	-	-	Louisiana.
Barrey Y. Egan,	-	-	-	-	Louisiana.
William P. Gibson,	-	-	-	-	Louisiana.
Douglass L. McEvers,	-	-	-	-	Louisiana.
William H. Berthelot,	-	-	-	-	Louisiana.

Charles J. Bickham, - - - - - Louisiana.
Francis Whicher, - - - - - Iowa.

THOMAS HUNT, M.D., Dean.

March 30, 1856.

FRACTURE APPARATUS, &c.—We beg leave to call attention to the advertisement of Mr. Jas. Syme, druggist and apothecary in this city. Mr. Syme keeps everything that is required by the medical practitioner, and is sole agent for the sale of Welch's apparatus for fractures, which has every appearance of being a very complete affair, though we have not yet had an opportunity of testing it practically.

ERRATA IN MARCH No.—Page 16, 7th line in 2d paragraph, read capsule instead of capsula. Page 17, 13th line from top, read media instead of medea. Same page, 7th line from bottom, read photophobia instead of pholophobia. Page 36, read Diner instead of Dinner. Page 42, 4th line from top, read unless instead of unlese.

RECEIPTS FROM SUBSCRIBERS.

In future we will acknowledge in each number of our journal the receipt of remittances from our patrons. In this way much trouble will be saved all parties concerned, and our friends can always know where to look for their receipts. We herewith acknowledge the following sums received.

C. H. Stone, - - -	\$5 for vol. 3.	P. C. Vaughn, - - -	-\$3 for vol. 2
M. Schlatre, Sr, - -	3 "	2. John Schlatre, - - -	3 " 2
H. C. McCall, - - -	3 "	2. R. W. Mitchell, - - -	5 " 3
J. R. McAfee, - - -	5 "	3. B. B. Baker, - - -	5 " 3
David W. McKnight, -	5 "	3. W. Breedlove, - - -	3 " 2
Kratz, \$3 on account,	"	3. G. W. Leatherman, -	3 " 2
G. W. Betton, - - -	3 "	2. E. D. Fenner, - - -	5 " 3
Smith Gordon, - - -	5 "	3. A. Holt, - - -	5 " 3
Edward Banks, - - -	5 "	3. John Sims, - - -	5 " 3
H. Sauvé, - - -	6 " 1&2.	Wm. Brandon, - - -	5 " 3
A. Bruen, - - -	3 "	2. A. F. Axson, - - -	3 " 2
Bonzano, - - -	3 "	2. W. N. Mercer, - - -	3 " 2
B. H. Moss, - - -	5 "	3. W. P. Williams, - - -	5 " 3
R. Bein, - - -	5 "	3. Dr. Ridgely, - - -	5 " 3
T. H. Finlay, - - -	5 "	3. A. H. Cage, - - -	5 " 3
W. H. Ballard, - - -	3 " 2.		

EXCERPTA.

HARVEIAN SOCIETY.—Dr. Sibson, President in the chair.—*Dr. Marshall Hall* read a paper on Asphyxia and its Treatment. He began by stating, that as the details of his investigation were before the Royal Humane Society, he could only place a brief abstract of them before the Harveian Society.

His object was to show :

1st.—That the blood during *circulation* becomes *self-poisoning*, chiefly by means of the carbonic acid formed.

2d.—That this poison is, *pari passu*, eliminated by respiration.

3d.—That during suspended respiration, this carbonic acid poison accumulates in the blood.

4th.—That the *special* means of obviating this effect, the *unicum remedium*, is to excite or imitate respiration.

5th.—That every means of augmenting the circulation *without* simultaneous respiration, augments the formation of carbonic acid poison, and consequently tends to destroy life.

6th.—That the modes of inducing artificial respiration hitherto proposed are nugatory and injurious for the following reasons :

7th.—1. The posture in which this measure has been attempted being the supine, the tongue falls backward, carries with it the epiglottis, and closes the glottis against all *inspiration*.

8th.—2. The fluids accumulated in the fauces, either from external sources, or by regurgitation from the stomach, operate in the same manner.

9th.—3. That the means of artificial respiration hitherto employed have been either of the nature of the *forcing-pump* or of the *suction-pump*.

10th.—4. That the former of these, besides having to overcome the impediment already described at the glottis, must necessarily be of force great enough to raise the ribs and carry down the diaphragm; and that such a force, as proved by Legallois and Leroy, may injure the tissues of the lungs.

11th.—5. That the other mode of inducing respiration, by applying and removing pressure, is utterly inefficient for the reason already mentioned, viz., the obstruction at the glottis.

12th.—That there is ONE mode of inducing respiration which at once obviates all these difficulties, and proves all-efficient.

13th.—That this consists : 1. In exchanging the *supine* for the

PRONE position. 2. In inducing the movements of respiration by alternately allowing the weight of the subject to press on the thorax and abdomen by laying it on its face, and removing that pressure by raising it; this last effect being accomplished by raising the shoulders on the ilia as a centre, or by raising both shoulders and hips together by lifting; or, lastly, by turning the subject on the side.

14th.—That these measures may be designated *prone-respiration* and *postural-respiration* respectively.

15th.—That to these measures may be added gentle pressure made on the posterior part of the thorax and ribs, and its removal alternately.

16th.—That whilst these measures are being adopted, others subsidiary, and injurious without them, may be superadded: such are—

17th.—Rubbing the limbs upwards with firm pressure, to promote warmth and circulation, removing the wet clothes and replacing them with dry ones which the bystanders may supply, &c., &c.

18th.—*Before* these measures are begun, every means of *exciting* respiration physiologically—such as irritating the nostrils and the fauces, dashing cold and hot water *alternately* on the face, &c., are to be fairly tried, the patient being first placed in the prone position for a moment, in order that any fluid present in the fauces may flow away.

19th.—The face and chest may also, when the season is not inclement, be exposed to the breeze.

20th.—But no time must be lost; the patient must be treated instantly, on the spot; messengers being dispatched for medical aid, and every means of relief.

21st.—It will be observed, that the measures proposed are limited to such as may be *always* available; other questions, such as those which relate to the use of the warm bath, of galvanism, of the inhalation of oxygen, or of pure but dilute ammonia (to neutralise the carbonic acid blood-poison), the transfusion of arterial blood, &c., &c., being left for another occasion.

Dr. Marshall Hall then observed, that it would be obvious that the RULES for rescuing the patient affected by suspended respiration must undergo considerable modification. He added, that the investigation was also in a state of *progress*; and that he had especially to ascertain the precise *value* of each of our modes of treatment by careful *comparative* experiment, not again trusting to mere experience, as it is called, which, as it does not consist in *comparative* experiments, can lead to no accurate and definite results. For instance, the opinions in regard to the value of the warm bath are not only different, but actually opposite,

here and in France, judging from experience; whilst experiment and theory alike *prove* that it is and must be injurious, unless it be preceded and attended by respiration.—*Lancet*.

ON FILAMENTOUS (ENTOZOON) WORMS IN THE LIVING HUMAN BODY.—By *Jonathan Green, M.D.*—In the months of May and June, 1843, were published in the *Lancet* two papers of mine on “Entozoon Worms inhabiting the Living Body.” These papers, I believe, occasioned doubts in the minds of some professional gentlemen, amounting, more or less, to a want of credence in the facts stated therein. This I in some degree anticipated, as such cases are extremely rare in this country, so much so that most practitioners pass through professional life without ever having seen a case of entozoon worms inhabiting the tissues of the human body, and it is the only case of the kind I ever saw. In one of those papers I promised that if I was ever enabled to throw more light on this condition of disease, I should, through your pages, avail myself of the opportunity of doing so.

Such an opportunity has occurred through the kindness of Professor Grant, of the London University College, himself a high authority in these matters. Dr. Grant has lately put into my hands the work of Professor Biagio Gastaldi, of Turin, in which the subject of entozoa and other worms is embraced and discussed by a master mind. In thus redeeming my promise, I would refer those of the profession curious in this subject, for full elucidation, to the able and practiced authority of Dr. Gastaldi; and as some may not have the leisure to turn back to the before-named two papers, I will here briefly recapitulate the essentials of the rare case—entozoon worms inhabiting the living body—as detailed in the *Lancet* of May and June, 1843.

The lady who was the subject of the affliction I never knew anything of; she came to my establishment, as it were, determined not to be recognized, wrapped up in a shawl, veil, &c., and merely asked for a sulphur fumigating bath. She never said who she was, nor did she name any medical gentleman that had recommended her to take the fumigations. She merely told the female attendant that she had been under the treatment of the first medical authorities of the west-end of London; that they had done her no good, and that she was determined of her own accord to try the sulphur fumigations, and did not say what was the nature of her malady. On the evening of the day that she took her first fumigating bath, the attendant (a more than usually clever, experienced woman) came to me, saying that she had that day had a very curious and not pleasant case—that the patient was all over worms, and

that she saw them creeping from the patient's forehead and face whilst she was in the bath. I answered her abruptly, by telling her not to talk such nonsense; she, however, seemed to maintain that she was right.

On the patient repeating the bath, the attendant came to me with the same tale, and was again reproved by me, on which she said she was correct in her statement, and added, that she did not like to attend such a patient, as she herself might catch the disease; however, being a reasonable woman, her objections were overruled. The lady had her second bath, and the former report was repeated, with some enlargement.

On taking the third bath, the attendant told the lady that she had named the case to me, and that I had twice scolded her for talking such nonsense, on which the patient said, "that was like all the doctors; they won't believe it."

On coming out of the fourth fumigation, there was such a very, very numerous escape of worms, that the attendant again became uneasy, and I suppose some discussion took place between her and the patient. The result was, that the latter sent me word "that, as I would not believe it, I might come down and judge for myself." I did so, and never was more surprised; there stood the patient *en chemise*. I was cautioned as I entered the room not to tread on the worms, and at once saw a round ring of pinkish white on the floor; these were worms which had fallen from under the chemise, and had not been swept up, in order that I might see them. The lady's head, face, and chest were covered with the shawl and veil; she seemed afraid of being recognized. On removing the part of the veil from the forehead, then reeking with perspiration, I saw little red points sticking out from the skin at right angles, and whilst looking at them some seemed to retract themselves, others evidently were getting longer, and became a quarter of an inch and more in length, and then fell on the chest and to the floor, as others had done. I then held aside more of the veil from the face, ear and neck; there was the same appearance of little pink thread-like worms, as thick as they could cluster, elongating themselves to get out of the skin, and then falling, as from the forehead, on the floor. Many of them seemed to give a sort of jump or jerk before they could escape and fall from the person. The lady became more emboldened, and I was allowed to remove the shawl from the neck and chest, and afterwards from the arms, legs, &c.; but from all parts of the person these worms were sticking out, stretching themselves, and then with a positive jump escaping from the skin to the distance of six or eight inches,

occasioning me to stand at a distance, in order that they might not fall or spring on to myself. With the corner of a napkin, I carefully wiped various parts of the skin where I saw the worms sticking out, but I could not wipe them away, though gently, without breaking off the heads; and of those that had become more elongated and protruding from the skin, they would break short off, the bodies being very tender; whilst the gentle pressure of the napkin seemed to greatly facilitate the escape of others, and very many were full an inch in length, yet for the most part they were from a quarter to three-quarters of an inch in length, and some more, looking like pink thin threads. They were annular and transparent, with red heads, and the tail part was larger than the head part. They lived only a few minutes after escaping from the skin, wriggling themselves as worms do, and almost invariably curled themselves into a crescent or horse-shoe form, then, taking a spring to many inches' distance, fell quite straight and dead, and the red heads in that short time would become dark-brown, approaching black in color. The napkin with which I had wiped the parts of the person I placed on a table, and having occasion to take it up again from its folds, the table under it was covered with these worms. I gathered about two or three tablespoonfuls of them, which were afterwards subjected to investigation, as detailed in the *Lancet*, of June, 1843.

The case being so unique I delayed publishing it, until a correspondent of the *Lancet* made an inquiry "whether there was a disease of the skin where living animals or insects were turned out." This mainly determined the recordation of the case.

Such cases, though so rare, I find are common enough in warmer climates, although I myself never saw a similar case of entozoa in those climes; but they must be well known to physiologists.

It is satisfactory to know, at least as far as this case goes to establish the fact, that in the sulphur fumigating baths, and perhaps other min-fumigating baths, we have a positive and direct remedy for such ailments, and which I think may be thus easily explained: The moisture and heat of these baths softening and relaxing the skin, the worms more easily get to the surface, whilst the sulphur (or perhaps other minerals) that are used in the baths would make their position there untenable, and they are readily enabled to escape from the skin.

The lady whose case is just related was very desirous of getting well of her odious complaint, as she called it; it was a sad source of annoyance to her husband, as the worms were constantly escaping on to the pillows and sheets, and had been so doing for more than two years.

She attributed as the cause of the complaint, her having fallen asleep in the air, near some stagnant water, and on waking found her mouth and nose full, as she said, of young gnats. I suppose she got well, for after a few more baths I never heard anything more of her, which I I should have done had she not got well, for certain it is, she found a direct and powerful enemy in the use of the fumigations for dislodging these worms, not in hundreds, but I may say in thousands.—*Lancet*.

AMERICAN MEDICAL ASSOCIATION.—The Ninth Annual Meeting of the American Medical Association will be held in the city of Detroit, on Tuesday, May 6th, 1856.

The secretaries of all societies and other bodies entitled to representation in the Association, are requested to forward to the undersigned correct lists of their respective delegations, *as soon as they may be appointed*; and it is *earnestly* desired by the Committee of Arrangements, that the appointments be made at as early a period as possible.

The following extracts are from Article 2d of the Constitution.

“Each local society shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half this number.

“The Faculty of every regularly constituted Medical College or chartered school of medicine, shall have the privilege of sending two delegates. The professional staff of every chartered or municipal hospital, containing a hundred patients or more, shall have the privilege of sending two delegates; and every other permanently organized medical institution, of good standing, shall have the privilege of sending one delegate.

“Delegates representing the Medical Staff of the United States Army and Navy, shall be appointed by the Chiefs of the Army and Navy Medical Bureau. The number of delegates so appointed shall be four from the army medical officers, and an equal number from the navy medical officers.”

The latter clause, in relation to delegates from the army and navy, was adopted as an amendment to the Constitution, at the meeting of the Association held in New York, in May, 1855. WILLIAM BRODIE, M.D., Detroit, Mich., one of the Secretaries.—*Peninsular Journal of Medicine and Sciences*.

CASE OF UNITED LIVING CHILDREN (RUSSIAN).—On the 4th April, 1855, one of the rarest cases of double formation occurred in the St. Petersburg Foundling Hospital—namely, two girls growing together by the skulls—which still live, and so far appear to be in good health.

Of all the cases of this kind hitherto known (of which there are seven), the union of the two individuals was never of that kind to bring the face of one child directly opposite to the face of the other. These twins are so united that if the middle line of the face of one child be prolonged from the nose, this would strike upon the ear of the other. Through the mobility of the necks the two children really lie in a straight line, one girl lying on the back, the other on the side, and thus they sleep. The face of one child is quite symmetrical as far as the forehead, and it is first in the formation of the skull that want of symmetry appears. In the face of the other, the right half is much shortened, and the eye of this side opens less than the other. The two sleeping, waking, want of food, &c. The one sleeps quietly whilst the other takes nourishment or looks about. Common sensibility does not appear to exist, since in cases of this kind the brains and nerves of each individual are preserved distinct. Not so always with the blood-vessels. Once, one child screaming loud, awoke its sister. The face of the screaming child became suffused and reddened deeply, whilst the other was still asleep. Then the face of the other began to redden and swell, and it was only after this that it opened its eyes. The features of the two children, especially of the one whose face is not shortened, are very pleasing. The physicians of the Foundling promise to observe this case more fully and publish the results.—*Monatsschr. für Geb. July, 1855.*

FORCIBLE DELIVERY.—In the proceedings of the Boston Society for Medical improvement, published in the Boston Medical and Surgical Journal, Dr. Stetson, of Quincy, Mass., reports a case of dropsy in both mother and child. The latter being dead, the skull was perforated and relieved of its contents, and the head delivered by the crotchet, but with difficulty. The shoulders could only be moved by powerful traction, by means of a handkerchief tied to the head, and by such efforts as made it necessary to secure the body of the mother by corresponding counter-traction. Twenty grains of ergot were given just before delivery, but only “in order to insure a more prompt contraction of the uterus,” and the expulsion of the placenta, effects which were secured. Dr. Jackson spoke of the astonishing amount of force in the way of traction which is often borne by parturient women, and also by the lower animals. He has known the tractive power of six men to be successfully used in the delivery of a cow; and we have seen the tractive power of a horse applied for the same purpose. Dr. Storer remarked that such forcible traction must always be more or less

injurious to the mother, and suggested that it might be better in cases of the death of the child to practice dismemberment. Dr. Cabot thought that dismemberment being so shocking to friends and attendants, should be avoided if possible. The editors suggest, that the course to be pursued should depend upon the condition of the mother ; but that violent and very long-continued efforts at extraction of a *dead* child, can hardly be justified in any case. It is better that the few attendants necessary to be present, should witness the shocking spectacle, than that the life of the mother should be endangered.—*Memphis Med. Rec.*

THE LATE POISONING CASES.—At the close of a lecture delivered on Monday evening, at the Bristol Philosophical Institution, Mr. Wm. Herapath, the celebrated analytical chemist and professor of toxicology, took the opportunity of adverting to the state of alarm which had been produced in the public mind by the recent alleged secret poisonings at Rugeley, Manchester, and elsewhere. The apprehensions which the cases to which he had referred had given rise, had, he said, been much increased by certain statements which had been put forth, and which, as he understood them, were those—that prussic acid could not be discovered in the system at more than fourteen days, that strychnia could only be detected a few hours after death, and that *coculus indicus* could not be detected at all. Now he had himself detected the presence of prussic acid in a human body after an interment of two months ; he had found *coculus indicus* in dead fishes and in a human body after it had been buried for ten months. The difficulties in the way of detecting poisons of this class were not, therefore, so insurmountable as some supposed, and he hoped that the knowledge of the fact would have the effect of reassuring the public mind.—*London Lancet.*

ALLEGED CURE FOR HYDROPHOBIA.—M. Guerin-Meneville lately brought before the French Academy of Sciences a means of curing hydrophobia, which, he stated, is practised in Russia with success. A little insect, the golden cetonides, found in considerable quantities on rose trees, is proved, when pounded to a powder, and administered internally, to produce a profound sleep, which sometimes lasts for thirty-six hours, and which has the effect, in many cases, of completely nullifying the hydrophobic affection. A distinguished entymologist of Russia, M. Motschouski, has tried several experiments with this insect, and in most cases with success.—*London Times.*

GOOD FEELING AT THE FACULTY OF PARIS.—The Dean of the Faculty, M. Paul Dubois, entertained a few days ago at one of the leading “restaurants” of Paris, such of the students as had distin-

guished themselves at the late examination. The speeches were of the most friendly kind, and it is to be hoped that this new feature will have satisfactory results. To keep students at a distance from their teachers is certainly an evil, and meetings like the one alluded to are calculated to raise the tone and demeanor of the whole mass of medical alumni.

LECTURES BY LIEBIG.—The first of a winter course of Lectures on Animal Chemistry has been delivered by Professor Liebig, in which he replied to the theory of phosphorescence of the brain originating thought and will, as advocated by Molscholt, Voight, &c., and showed that, by like reasoning, the bones should be much better sources of motive power.

LIST OF MORTALITY FOR FOUR WEEKS ENDING MARCH 31, 1856.

	1st week.	2d week.	3d week.	4th week.	Total.
Total number of deaths.	78	61	68	81	278
Males	36	38	40	49	158
Females	28	18	26	30	93
Sex not stated.	14	5	2	2	27
Whites	62	45	46	67	209
Blacks	12	7	14	10	42
Mulattos	4	7	8	4	23
Color not stated.	0	2	0	0	4
Native Americans.....	17	20	18	19	69
Northern States.	1	3	4	2	11
Western States.....	1	1	2	16	7
Southern States.....	15	16	12	1	51
Foreigners	22	14	14	28	69
English.....	0	0	0	1	0
Irish.....	12	6	8	12	40
French.....	1	1	3	6	7
Germans.....	1	5	0	3	7
Place of birth not stated.	39	27	36	34	140
Age not stated	20	9	10	11	47
Under one month old	3	7	2	8	22
From one to five years old	14	15	16	13	61
From 5 to 10 years old	2	3	1	2	7
From 10 to 20 years old	0	2	2	3	5
From 20 to 30 years old.....	18	7	9	13	46
From 30 to 40 years old	8	3	11	15	28
From 40 to 50 years old	4	8	3	6	25
From 50 to 60 years old.....	4	3	3	1	13
From 60 to 70 years old.....	2	2	2	3	8
From 70 to 80 years old	2	2	3	4	8
From 80 to 90 years old	1	0	3	1	4
Over 90 years.....	0	0	3	1	4
Other Diseases.....	63	54	61	68	242
Typhoid Fever.....	3	4	2	3	11
Cholera	0	1	1	1	3
Intemperance	0	0	0	0	0
Accidental	0	1	0	0	1
Still-born.....	10	1	4	7	19
Disease not stated.....	2	0	0	2	5

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NO. III.

PROFESSOR BERNARD'S LECTURES ON THE BLOOD.

By ANTHONY PENISTON, M. D., of New Orleans.

"It is a mysterious fluid the blood."—DAVY.

From the most remote ages the blood has furnished the theme for a number of important essays, and different theories on its nature and properties have vied with each other for preëminence. At this day, when the merest tyro in medical science can describe with ease the course of the blood through the arteries and veins, it appears strange that a mechanism apparently so simple should not have been discovered in the very infancy of science; nay, more, when we reflect that the immortal Harvey, on publishing his doctrines, met with the most determined opposition on every side, we can scarcely conceive such an aberration of the human mind. But we must remember that nothing is more blind than prejudice, and that error itself, when handed down through a succession of ages, seems entitled to respect. It may not be uninteresting to recall the doctrines which were in vogue previous to the time of Harvey.

Plato and the different writers of antiquity supposed that all the vessels of the body were of the same kind, and they were known by the general name of veins. Galen, in his commentary on the dogmas of Hippocrates and Plato, reproduced the idea of the latter, that the vessels placed along the vertebral column were double, in order to correspond to the division of the body in two parts.

Afterwards, Erasistratus distinguished the arteries from the veins, but he had no idea of the circulation of the blood, and for this reason, that when a body is opened, the veins are found full of blood, and the arteries

generally empty. Now, Erasistratus having observed this, concluded that the same must be the case during life, and that the veins alone contained blood, whereas the arteries contained a much more subtle agent, which they called the vital fluid. In conformity with this idea, their nomenclature of the pulmonary vessels was entirely different from the present system. Instead of our terms pulmonary arteries and veins, they used the terms *vena arteriosa* and *arteria venosa*. The following is the origin of these terms: The vessel which comes out of the right ventricle, now called the pulmonary artery, according to their ideas belonged to the right side of the heart, and as it was found to be filled with blood, they called it a *vein*, but as its texture evidently resembled that of the arteries, they called it *vena arteriosa*. On the other hand, the veins which return from the lung and empty themselves into the left side of the heart, they supposed must belong to that category of vessels which contained the vital spirits; they accordingly called those veins *arteries*, but as their texture resembled that of the veins, they called them *arteria venosa*.

These terms were used by all the authors down to Harvey himself, and this explanation is necessary in order to understand even the writings of this great man. As to the movement of the blood in the veins, they accounted for it by a sort of oscillation to and fro, like the ebb and flow of the tide. It is needless to say that all their opinions on the functions of the arteries were a mass of incoherent and incomprehensible doctrines full of metaphysical nonsense. As to the heart, its structure and mechanism were completely unknown; the right side they supposed took some part in the movement of the blood, whilst the left side was the laboratory in which the vital spirits were fabricated.

In order to fabricate those spirits, air alone was not sufficient; some blood was also required; and this was obtained by direct percolation through the *porous* walls of the ventricular system.

Such were the strange doctrines which had satisfied the whole medical world during sixteen centuries, until Harvey demolished the monstrous fabric.

He discovered the circulation of the blood many years before the publication of his celebrated work, the first edition of which appeared in 1628. This great man showed the utmost prudence and care in the refutation of an error, at the same time that he was diffident and modest in the publication of a new truth. Before sending his work to press, he demonstrated the circulation of the blood to his colleagues of the College of Physicians, in London, during nine consecutive years.

In order to avoid being taxed with arrogance and presumption, he submitted to this honorable body the facts on which he based doctrines so different from those which had been taught by the most illustrious men of all ages.

Harvey commenced his labors by refuting the old system relative to the functions of the arteries and of the heart.

In the first place, he asserted that during life the arteries contain blood. He proved it by referring to wounds of those vessels, by arteriotomy itself, and by numerous experiments on living animals, affording one of the most successful instances of inductive reasoning and experimental physiology. He showed that the pulse was owing to the impulse of the blood in the arteries, and that if on a living animal two ligatures be put on an artery, and the vessel be opened between these, it will be found to contain blood and not air. He then explained the true mechanism of the diastole and the systole of the arteries. He said that the diastole of the artery was not the result of an aspiring force, but caused by the impulse of the blood; that when an artery is opened, the blood is thrown out in a jet, alternately strong or weak, and that the diastole of the artery coincides with the former. He explained the absurdity of the prevailing belief that the heart and arteries dilate and contract simultaneously; because, if this were the case, nothing could be driven from one cavity into the other.

Under the imposing authority of Galen, the opinion had long prevailed that the impulse of the arteries was derived from the heart by a sort of propagation along the parieties of the arteries, and not at all by the impulse of the blood. But without refuting the absurd experiments by which Galen had established his theory, it was quite sufficient to answer, as Harvey did, that in an aneurism the pulsations are felt when the parieties of the artery have been entirely destroyed.

But after demolishing the old theories, the task yet remained of building up a new fabric in their stead. It then became necessary for him to examine the movements of the heart on living animals, and it is recorded of him that when this organ was exposed to view, and he beheld its systole and diastole taking place with almost the rapidity of thought, he shrunk from the task, and exclaimed, with Fracastor: "The movements of the heart are known to God alone!" He had nearly accepted the Aristotelian comparison of the ebb and flow of the tide, but he persevered and saw that as the animal grew weaker and life became nearly extinct,

the different phenomena of the heart's action became plainer. He also attentively examined those movements on cold-blooded animals, and the final result of his studies was a master-piece of observation and philosophical analysis; so much so, indeed, that to this day scarcely anything has been added to his description. Harvey proclaimed that the movement of the heart is due to muscular action. He pointed out the shortening of the heart during its systole, and its projection forward at the same moment when it strikes the chest. It was maintained until then, and it has been lately repeated (Beau) that the impulse of the heart against the chest occurred during the diastole. The next step was to establish the circulation of the blood; the proofs he derived from various sources. In the first place, he ascertained the quantity of blood which passes through the heart in a given time. No one had ever an idea of the kind anterior to him. It was then that he made the following celebrated calculation: "Admit," says he, "that at each pulsation the heart throws into the arteries three ounces of blood. Now, as the sigmoid valves prevent this blood from returning into the ventricle, and the heart contracting on an average two thousand times in half an hour, the consequence will be, that in that space of time more than five hundred ounces of blood will be sent from the arteries into the veins, which is a much greater amount than the whole body contains. If the time be lengthened to an hour or a day, it is evident that the quantity could not be derived from the food; therefore, we are bound to admit that in a given time the whole mass of the blood goes repeatedly through the heart." He drew his arguments also from venesection, showing that where a large vessel is opened the animal will lose all the blood in its body, and not that alone which is contained in a single vein. Harvey likewise ascertained the use of the valves which are found throughout the course of the veins; he insisted that their construction did not allow the blood to flow from but towards the heart, and he compared them to the sigmoid valves of the aorta and pulmonary artery.

When Harvey's work appeared, the great mass of physicians, anatomists and physiologists denied the circulation of the blood. Some, even, who admitted it, pretended that it had long been known, and attributed its discovery to others; so that there were few who bowed in acknowledgment of truth, or rendered homage to the genius of that illustrious man.

Yet Harvey lived to see his doctrines almost universally admitted, and thirty-four years after the publication of his work, the last and most obstinate of his opponents publicly acknowledged his error and the truth of the new doctrines.

Though Harvey had proved irrefutably the circulation of the blood, and its passage from the arteries into the veins, yet the ocular demonstration of this passage could not be given, and he himself was uncertain as to the manner in which the communication took place. He could not tell whether it was by direct vascular anastomosis, or by percolation through the porous though solid tissues.

The direct demonstration was one of the earliest triumphs of the microscope, but Harvey died before witnessing this last confirmation of his theory. In 1661, Malpighi saw the blood pass from the artery into the vein on the mesentery, lung and urinary bladder of a frog. The same thing was more clearly demonstrated by Leuwenhoeck, in 1668, and afterwards G. Cooper observed the same phenomena in warm-blooded animals, viz., in the epiploon and mesentery of young dogs and cats.

LECTURE II.

The importance of an intimate acquaintance with the nature and properties of the blood is easily conceived, when we reflect that the production of blood is the most essential part of nutrition; for the blood being incessantly in motion, and furnishing those materials which are required by the different tissues of the body, requires on its own part a constant reproduction of its elements. This production of the elements of the blood is the source of life, and the vital force and energy are in direct ratio with the quantity of blood generated in the system. On the other hand, the different pathological conditions of the blood give rise to numerous symptoms which it is important to know and to distinguish from each other.

The physiology of the blood is yet imperfect, and numerous problems are still open for investigation.

The micographers have shown us the blood corpuscles and their different properties; the chemists have taught us the elementary composition of the blood and the changes which it undergoes in passing from venous to arterial blood. But acknowledging all the discoveries which are due to chemistry in the physiological sciences, we must, nevertheless, admit that they went beyond their true limits when they undertook to explain all the phenomena of life by purely chemical laws. Lavoisier, who compared the body to a furnace, undertook to analyze all the materials which enter and those which are discharged from the organism, but that cannot account for the formation of the blood. Experiments have shown that in order to

support life, an animal must take in solid or liquid food more than one-tenth part of the weight of its body. The most delicate observations have been made on this subject by calculating exactly the amount of food given to an animal, taking into account the influence of respiration, and the result of the eliminating functions, consisting of urine, excrements, etc., and the result has proved that the ratio is not constant between the weight of ingesta and that of the excrements. Thus, an experiment of this nature having been made on a young cat, the result is shown by the following figures, by which it appears that for every kilogramme of its own weight during twenty-four hours it had absorbed—

Meat.....	108.755
Water.....	26.218
Oxygen.....	29.478

164.451 out of 1,000 parts by weight.

During the same time it voided in the like proportion—

Urine.....	91.036
Excrements and vapor of water...	55.069

146,105

So that..... 18,346 parts were absorbed by the animal.

By other experiments, similar in their nature, it has been ascertained that the quantity of excrementitious matter may be greater, less, or the same as that of the ingesta. Hence, different results, according as the animal fattens, loses in substance, or remains stationary.

But such general results are entirely inadequate to explain the phenomena which succeed each other in the system during the process of digestion. It is the study of these internal and intermediary functions which must explain the formation of the blood. We cannot suppose that food enters the organism without undergoing important modifications, as the result of digestion and absorption. The globules of the blood, the fibrine, the albumen, etc., do not exist as such in the food, their elements certainly exist therein, but they must undergo a peculiar elaboration in passing through different organs, the result of which is the formation of blood. The liver, the spleen, the lungs, the kidneys, all exercise peculiar modifications on the blood; that of the vena porta, for instance, being different from that of the hepatic veins. Many definitions have been given of the blood, but it is exceedingly difficult to find one that is unobjectionable.

Thus, if we took into consideration the vertebrated animals alone, we

might define the blood: a red liquid which circulates in the different cavities of the heart, in the arteries, veins and capillary vessels. But if we choose to embrace zoology and general physiology, the definition becomes too narrow; for the circulating fluid of the invertebrated animals is not red. If, on the other hand, we do not hold the color as essential, and define the blood as that nutritive fluid which circulates in certain special vessels distinct from the digestive tube, this also would not be without reproach; for though it includes the blood of the invertebrated, it does not sufficiently distinguish the blood from the lymph and chyle of the vertebrated.

Moreover, blood is not everywhere identical with itself, but differs in properties and composition, according to the point where it is examined. Arterial blood is everywhere the same, but venous blood is modified by the different organs through which it flows: thus, the blood of the liver differs from that of the kidneys, the blood of the spleen differs from that of the lungs, and so forth.

Venous blood is commonly reported as deleterious, whereas arterial blood is supposed to be eminently vital; but this distinction is far from being well founded, and the color of the blood is not as important a consideration as many other characteristics. Take, for instance, two living sparrows, put one under a bell glass containing sulphurated hydrogen, the other in carbonic oxide gas. The quantity required of these two substances to produce death is exceedingly small, and they perish almost instantaneously, so that their death cannot be attributed to the want of oxygen, but to the poisonous effect of those two gases. Though resembling each other in their deadly results, those two gases have opposite effects on the blood; the oxide of carbon renders the blood of a bright red color, and the sulphuretted hydrogen, on the contrary, turns it perfectly black. The reason of this is, that the oxide of carbon prevents arterial blood from becoming venous, and sulphurated hydrogen prevents venous blood from becoming arterial.

It will be our aim in the following pages to examine the alterations which the blood undergoes in passing through different organs, for these different phases of elaboration are replete with physiological interest. As the blood is essentially a nutritive fluid, it presents every where certain properties which are essential to entertain life. One of the characteristics of blood is its color, but vertebrated animals alone have red blood. That of snails presents a bluish aspect, and different caterpillars have greenish blood:

The red color of the blood is due to the globules which are held in suspension ; if these blood corpuscles be altered by disease or vitiated food, they produce different pathological states, such as anemia, leucocythemia, etc. During digestion, the blood contains a certain proportion of fat globules, derived from the absorption of chyle, which imparts to the blood a milky look. This appearance is especially observable in certain animals, such as geese and chickens, which are stuffed with large quantities of food in order to develop their liver in a peculiar manner. In a remarkable case of scurvy observed at the Hotel Dieu, a few years ago, the patient was subject to hemorrhages from different parts of the body, the blood being intensely black at first, and then becoming blue on exposure to the air. The different acids did not alter the appearance in any way, but caustic potassa produced complete discoloration. This is the only case of the kind on record. Bichat attached great importance to the difference in color between arterial and venous blood ; he said that arterial blood contained the vital principles, whereas, venous blood contained noxious elements ; he explained in this manner the mode of foetal development, and said that those parts which received the greatest amount of arterial blood, as the head, for instance, would be more developed than the inferior extremities.

But this difference in color is far from being as important as Bichat supposed, and, in the very case of foetal circulation, there is no difference in color between venous and arterial blood. This has been shown by numerous experiments on the foetus of animals by Müller, Bischoff and ourselves. There must, undoubtedly, be some difference between the blood which goes to the placenta and that which returns from it, but it is not evinced by any alteration in color.

We know, moreover, that when arterial blood has traversed the different organs it becomes black, or venous blood ; but, even this rule has an exception in the case of the kidneys, of which the returning blood is red, and resembles arterial blood. This experiment can be performed on the rabbit, when it has been deprived of eating for a few hours. Open the abdomen, and you will observe through the transparent walls of the renal artery and vein, that the blood is of the same color in both ; a small superficial vein running in the neighborhood, presents, on the contrary, the characteristic blue color of the veins. Certain gases produce very interesting effects on the blood. The way of performing the experiment, is to put the blood in a bell glass in contact with the gas, and then observe the effect produced by the absorption of the gas. The two principal gases to

which the difference in the color of the blood is attributed, are carbonic acid and oxygen, the latter turning venous blood to a light red color, and the former, which darkens red blood. Thus blood absorbs oxygen in the lungs, and is afterwards deprived of it in the capillaries. When we administer large quantities of oxygen to animals, they become excited, the circulation is accelerated, they appear, as it were, to live faster. Though oxygen reddens the blood, it does not deprive it of the property of becoming venous, as other substances will be seen to do. On the other hand, carbonic acid gas has the property of darkening the blood; and it has been ascertained, that it requires 30 per cent. of that gas to produce death in a dog; and, when we examine the veins of an animal put to death in that way, we find that all the vessels contain black blood, so that this substance has exactly the opposite effect of oxygen. As a general rule, we might say, that a vital gas is that which reddens the blood, and a poisonous one, that which causes it to turn black; but there are many exceptions to this rule. Thus, oxide of carbon, which reddens the blood, is eminently poisonous, so much so, that mixed with air in the proportion of one-hundredth part, it will produce almost immediate death. The poisonous effect of carbonic oxide seems owing to the property it possesses of arresting that mutability which is essential to the vital properties of the blood, and life ceases at once when the change from venous to arterial is prevented.

The color of the blood may be important under a medico-legal point of view. Thus, in a case of asphyxia by charcoal, carbonic acid is rarely the cause of the death, as it requires 30 per cent. to produce death; on the other hand, carbonic oxide may very easily do so, as one-hundredth part will have the same effect; now, this will be ascertained by the color of the blood in the veins, according to the manner just stated. Prussic acid also possesses the property of reddening the blood, like oxygen, and carbonic oxide. There are still other means of producing this effect. When an animal dies from hemorrhage, the venous blood is at first black, but when the animal becomes weaker, and is near death by syncope, the blood is no longer venous, but returns through these vessels with all the appearance of arterial blood. The reason of this is, that through the deficiency of nervous action, the transformation from venous to arterial blood does not take place. The proof of this can be given by the following experiment: Cut off the limb of an animal in such a way as to leave no communication with the trunk, except by an artery and a vein, or these being also severed, if the communication be re-established by a glass or gum elastic tube, the

circulation will continue in the amputated limb, but nervous influence will be entirely abolished; you will then observe, that for a few moments the blood which returns by the veins is black, but as the limb gradually grows colder, and the nerves cease from acting, the returning blood in the vein gradually assumes the color of arterial blood. A further proof that this is owing to deficient innervation, is, that if the nerves are artificially stimulated by means of magnetism, the blood in the veins immediately becomes black, showing that the influence of the nervous system is essentially vital. This question has also a direct application to medical science, for an analogous phenomenon has been observed in some severe cases of typhoid fever, in which the venous blood presented a cherry-red color, instead of its ordinary indigo blue. Of late years some authors have turned their attention to the odor of the blood, and have maintained that the peculiar smell of the animal is transmitted to the blood, and might serve to recognize the species of animal from which it was taken; thus, the blood of the ox has a different smell from that of a sheep or pig, in the same way that the blood of a man has a different smell from that of a woman or child. Freshly drawn blood has a peculiar faint odor which it is difficult to describe, and those nice distinctions suppose a more delicate sense of smell than appertain to many persons, though it is said that by adding a small quantity of sulphuric acid mixed with water, the odor will be rendered more apparent.

We must now consider the temperation of the blood, a subject replete with interest. In the first place, we find the animal creation divided into two great classes, viz: the warm and cold blooded animals. In the former, the temperature of the blood is invariable and but little affected by that of the surrounding medium; on the contrary, the second class are eminently variable following the temperature of surrounding objects, and having no internal source of heat.

Among warm blooded animals, the temperature of the heart has been taken as the standard of comparison for the blood, the temperature being invariable in a great measure, whereas, the surface of the body may lose its caloric in very cold weather, or retain it in warm, so that several degrees of difference may thus be occasioned, according to the temperature of the surrounding atmosphere. We have already said in a preceding lecture, that the blood is warmer in the right ventricle than in the left, and that the summum of temperature, is in the vena cava ascendens.

When an individual is placed in an elevated temperature, but not above

that in which animal life can be maintained, no effect will be produced on the temperature of the blood internally, but the respiratory movements are accelerated, and if the temperature be still further increased, the blood may finally become heated, but if the increase of heat is four or five degrees above natural temperature, the animal will surely die. Mammiferous animals die in a temperature of 44 or 45 degrees centigrade, 111 or 113 Fahrenheit. At this stage, the blood is greatly modified, it becomes very black, and does not redden when in contact with the air.

Birds have much warmer blood than mammiferous animals, their temperature being generally about 44 degrees centigrade; so that birds actually live in a temperature which would be fatal to other animals; but if birds be subjected to an increase of heat beyond what is natural to them, their blood also becomes heated towards 48 and they die.

A strange fact connected with the increase of temperature is, that the muscles lose their power of contracting where the blood has been elevated beyond the normal point, and galvanism itself ceases to have any effect.

We now pass to another branch of our subject, viz: the quantity of blood contained in the system. Numerous experiments have been made to ascertain the total amount of blood in proportion to the weight of the animal. One of the first attempts was to draw out all the blood by venesection, the animal being first weighed, and then the vein being open, all the blood was drawn which could be obtained, and then the animal was weighed over again, in order to find the loss in weight. But this process is entirely deficient, for it only proves that an animal dies long before losing all its blood, an abstraction of a twentieth part being sufficient to produce death. By opening an artery, we can obtain more blood than by cutting directly into the heart, because, in the former case, the heart continuing to contract, fresh blood will be poured out at each pulsation, the lymph furnishing new materials to repair the drain on the system. It is a well known fact, that when an animal is killed by a sudden and heavy blow on the head, if the vein be then opened, it will give much more blood than if the animal had been bled without being stunned. It seems that the concussion of the brain re-acts on the nervous system, and by that means on the capillary vessels, which are thus entirely emptied.

Another method proposed was, to estimate the total amount of blood by the proportion of iron contained in a given amount of blood—thus, by analysis we might ascertain the quantity of iron contained in 100 grammes of blood, and then the whole animal would be submitted to a process of in-

cineration, in order to ascertain the total amount of iron contained in the body, and then, by a simple proportion, the total amount of blood would be easily calculated. But it is evident, that for this experiment to be correct, we must first prove that no other part of the body contains iron, and this is not the case, for the hair and beard contain a notable quantity of iron. In fact, it has been remarked that chlorotic persons have generally large quantities of hair, and this has given rise to the opinion that the quantity of iron necessary for the exaggerated growth of hair, was abstracted from the circulation to the detriment of the general health. It is a matter of observation, that men who wear a very long beard, are generally paler, than their otherwise good health would seem to explain; so, that in the above experiment, it might be necessary to shave the animal before reducing it to ashes.

With these corrections, the above process may be a very good approximation, but it is a difficult and complicated operation, which at best can only be applied to a very small animal.

Valentin has proposed another process, according to which a certain quantity of blood must be drawn from an animal, say 50 or 100 grammes: this quantity is then submitted to a process of dessecation in as tove heated to 212° Fahrenheit. The liquids being thus completely evaporated, nothing remains but the solid constituents of the blood. By this means you obtain the proportion of solids contained in the quantity of blood drawn, in the first place. The next step is to substitute for the 50 grammes of blood, the same quantity of water, by injection, into the veins of the animal. Allowing a few minutes for the water to mingle with the general circulation, the animal is again bled, and the same quantity of blood drawn; and this is again submitted to a process of dessication, in order to ascertain what is the proportion of solids contained in the present diluted state of the blood. And then the simple problem remains—to ascertain the total quantity of blood, diluted to a given extent by a known quantity of liquid. By this process, the proportion between the total quantity of blood and the weight of the animal was, on the dog, as 1 : 4½; on the sheep, as 1 : 5. If this proportion be applied to the human species, the result would be, that a man weighing 145 pounds has 32 pounds of blood; which is evidently incorrect. This process supposes that the quantity of liquid introduced into the system is equally diffused throughout the organism; which is not the case. In the first place, all the veins do not contain the same kind of blood; and secondly, it has been ascertained that when

liquids are thus artificially introduced into the organism, a large quantity will be absorbed by the liver, the spleen, and other organs; so that very little of it remains in the circulation.

The above process is barely an approximation. In fact, the quantity of blood is not always constant. It increases during digestion, and diminishes during abstinence. This is evinced by the state of the pulse, which is much stronger during digestion. Mr. Magendie invented an instrument called a manometer, for the purpose of showing the tension of the blood in the arteries, the pressure of the blood being indicated by a column of mercury graduated on a regular scale. The blood diminishes during abstinence, because the functions of the different organs required a constant supply of nutritive material. Thus, the kidneys, the lungs, the skin itself, all combine to eliminate certain elements of the blood, the whole mass of which is thus constantly diminishing. So that when an animal is exposed to prolonged abstinence, no blood remains, except in the large vessels, and the animal dies in convulsions in the same way as if it had been bled to death. If an animal be repeatedly bled at the same time that it is abundantly fed, after each venesection, the tension of the blood in the arteries being reduced, the heart is called upon to supply the deficiency; and this very soon produces hypertrophy of that organ.

The circulatory system is made up of two sets of organs, the heart being the active agent, and the arteries the passive medium.

When the manometer is attached to an artery, in order to ascertain the pressure exercised by the column of blood, we find two distinct phenomena, viz: a permanent elevation of the mercurial column—indicating the pressure of the blood in the arteries; and, secondly, an oscillating motion—indicating the contractions of the heart; the mercury rising about 10 millimetres at each pulsation.

If blood be transfused from one animal into another of the same species, the total quantity of blood being thus increased in the latter, by the quantity taken from the other, the result will be shown by the manometer; the tension of the blood in the arteries being much greater, though the contractions of the heart will be proportionably weaker.

LECTURE III.

The blood is essentially a circulating fluid. In its physical properties, the blood is a visquous albuminous liquid, containing divers salts in solution, and holding in suspension certain corpuscles called the globules of the

blood. I first thought it would seem that this thick, visquous fluid would circulate with difficulty through the capillary vessels; whereas the opposite is the fact. When the blood is decomposed and becomes watery, infiltration and oedema are generally the result. Take, for instance, a subject recently dead. If you attempt to inject warm water from the arteries into the veins, so as to imitate the circulation, you will find that at first it goes on very well; but soon the adjoining cellular tissue becomes filled with liquid, the capillaries are blocked up, and circulation becomes impossible. When the serum of blood is used in this manner, the circulation is in no way impeded. But the serum is an albuminous fluid, having a weak endosmotic power. As to the globules, an indispensable requisite for their circulation is, that they be held in suspension; otherwise they would fall to the bottom and soon clog up the vessels.

The globules are held in suspension by the fibrine which exists in the blood, in a liquid state. If the fibrine be removed from the blood, as can be easily done, and the defibrinated blood be introduced into the circulation, it will soon impede the vessels. This latter phenomenon has been observed under the microscope. In the normal state, these globules are seen to circulate through the small capillaries, preserving always a certain space between each other. But as soon as the fibrine is taken away, they accumulate in masses towards the smaller ramifications, and completely obstruct the circulation.

If we put some fresh blood into an open vessel and allow it to coagulate, and then cut the coagulum into slices, it will be seen that the upper strata contain the greater proportion of fibrine, because it has a tendency to rise; whereas the globules generally drop towards the bottom.

When coagulation is slow, we observe what is called the buffy coat of the blood; because the fibrine rises to the surface, without any blood globules, which have fallen lower.

COMMUNICATED.

Messrs. Editors: The great mortality of yellow fever proves that its pathology is yet an enigma to the profession, and it is plainly the duty of every physician to contribute his mite towards solving this dread mystery.

Dr. Stevens, in his very valuable work on the blood, I think, has thrown some light on the subject, and, therefore, I shall take the liberty of quoting freely from him. Preface, pages 7 and 16—"Fevers in the tropics not the effect of nervous impressions, nor of local inflammation of the brain or stomach." Preface, page 10—"Vital fluid is always diseased in fevers, and we can only form a correct pathology by including the diseases of the fluids as well as those of the solids." Page 12—"That the blood is both black and diseased in the last stages of all those fevers that are speedily fatal, is now just as certain, as that the sun is the great source of light." "Serum owes the property of reddening the blood to its saline ingredients." "Page 13—Salts change black blood to scarlet."

In Jackson's principles of medicine, page 92, we find "that the crisis or constitution of the blood, may be effected by the loss of function in organs requisite for its healthy formation, is not improbable, and may possibly be an effect in the diseases called *putrid fevers*; but in what that effect consists, has not been detected." Stevens says, page 15, "The blood becomes black exactly in proportion to the diminution of its saline matters."

Stevens, page 43—"When the blood contains an excess of saline matters, it adds to the stimulatory power, increases the force of the circulation, and a greater proportion of heat is evolved than at other periods." Page 129—"Salines hold fibrin and albumen in a fluid state." Page 158—"John Hunter, says, the blood can receive and retain extraneous matter, capable of destroying the solids." Page 286—"African typhus kills in one of two ways—through the brain, or through the blood." Page 288—"The heart after death, is flabby in its consistency, and crammed with a thin, black, half putrid fluid." Page 320—"Dr. Prout has discovered that the quantity of muriate of soda is greatly diminished in the urine, about twenty-four hours before death." Dr. Stevens, says: "It is probably also, that about the same time, in most diseases, the quantity of saline matter is diminished in the blood." Page 357—"The black color of the blood in yellow fever, is proof of great diminution of its saline ingredients." Page 360—"All acids darken the color of healthy blood." Page 361—"Pure alkalies have a similar effect."

Jackson's Principles of Medicine, page 112—"Black blood passing into an organ, soon determines a suspension of its irritability, and consequently its vitality."

It will be seen from the above quotations, that Dr. Stevens lays great stress on the condition of the blood in yellow fever.

The success of his saline treatment in the West Indies, is almost incredible. The experiments of Drs. Hort and Riddell, with the neutral salts on the blood, as reported by them a few years since, tends greatly to support the views of Dr. Stevens. Let us consider the indications for treatment in yellow fever. Death is caused in one of two ways, either by congestion of the brain, or from hemorrhage. If the brain is threatened, blood-letting and active cathartics are assuredly indicated in the early stages of the disease. But how prevent hemorrhage, or if it occurs, arrest it? The U. S. Dispensatory says, that "Alum, in ordinary doses, is astringent and antispasmodic—it allays nausea and vomiting—relieves flatulance, etc., in purgative doses."

U. S. Dispensatory says, that "Sulphate of iron is astringent and tonic." Both are excellent antiseptics. In these two simple medicines then, we have the means of meeting three indications in the last stages of yellow fever, namely: allaying nausea and vomiting, astringent and tonic; and from their antiseptic properties, I think I may safely add, prevent the putrescent tendency of the blood; and also, as the blood is pabulum of the solids, prevent, if possible, the latter from losing their normal functions. In 1854, Professor Riddell examined thirty hearts of yellow fever patients, and found the molecular structure, broken down in every one of them. This accounts for the labored pulse, the extreme weakness and often sudden death from the least physical exertion, in the last stages of yellow fever. Following the suggestions of Dr. Stevens, I used the bicarbonate of soda as being least irritating of the neutral salts. But not being satisfied with the results of the bicarbonate of soda, I commenced the use of alum and iron, for the reasons given above. I beg leave to report the notes of three cases. No. 1 is the case in which I first tried the alum and iron.

Case I.—Ludwig Baumann, a German, aged 29 years, light hair, fair complexion; came in ward 33, Charity Hospital, August 3d, 1855; No. of bed, 485.

Student's R.—Quinia sulph. grs. xv. s., at once, cold lotions to head, lumps of ice, hot foot bath.

August 4th—Symptoms: Very high fever, eyes injected, patient very restless, nausea, great frontal headache, pains in knees and calves of his legs, neck and breast of a dark bronze color, capillary circulation languid. R. sol. sod. bi-carb. ζ vj. s., a table-spoonful every three hours, cups to back of neck, hot foot baths, to be repeated pro re nata, orange leaf tea as a drink. Patient to use the bed pan, and not to leave his bed on any account whatever.

August 5th—Fever partially abated. R. orange leaf tea oj., to be used through the day, lumps of ice to eat.

August 6th—Symptoms similar to those of the preceding day. To move the bowels, R. one seidlitz powder; diet, chicken broth.

August 7th—Patient very restless, vomiting, diarrhea.

R Pulv. alum, gr. viij.
 " ferri sulph., gr. vj.
 Tinct. opii., ℥jss.
 Muc. gum. acac, ℥iv. ℥ s.

A table-spoonful every three hours. R. anodyne enemata No. 3, one after each stool. Patient says he has voided no urine within last twenty-four hours, bladder not distended. R. infus pipsisewa oj., drink freely, milk punch.

Noon visit—Patient very restless, still some vomiting. R. emplas canthar. 8x10 to epigastrium, chicken soup, milk punch, lumps of ice.

August 8th—Patient better. Lumps of ice, chicken broth.

Noon visit—Still restless, some vomiting, two stools, pulse 100 per minute.

R Pulv. alum, grs. viij.
 " ferri sulph., " iv.
 Tinct. opii., gtt. x.
 Muc g. acac, f℥ij. ℥ s.

A table-spoonful every two hours.

August 9th—Patient better, sleeping, pulse 96. R. chicken broth, wine oz. vj. s. during the day.

August 10th—Still improving, two stools, blister red and quite sore, no pain anywhere, urinates freely, gums bleeding a little. R. simple cerate to blistered surface, chicken soup, milk punch and lumps of ice freely.

August 11th—Patient still improving, one stool since yesterday's visit, skin very yellow. R. iced lemonade, chicken soup.

Noon visit—Some fever. R. liq. acet. ammon. oz. ij. s., a table-spoonful every three hours, lumps of ice freely, milk punch.

August 12th—Symptoms but little changed from yesterday. R. liquor ammon. acet. oz. iij. s., a table-spoonful every four hours, milk punch; disposition to diarrhea. R. an anodyne enema.

August 13th—Patient died last night.

Looking over the history of this case, I am disposed to think that the result might have been otherwise if the alum and iron had been *continuously* used from its first exhibition. Contrary to my strict advice, "To

keep the patient on his back, and make him use the bed pan," he was allowed to get out of bed to stool. The morning preceding death, he got out of bed without assistance, had a copious operation, and climbed in bed again, very much exhausted, and died in about fourteen hours afterwards. The fever never entirely left this patient.

The stomach being very irritable in this case, I was afraid to give large doses of alum and iron. I regret now that I did not use them more freely.

Case II.—Ward 33, bed 497.

John Hanrick, Hungarian, aged 24; came into the hospital this morning, August 8th, 1855. Was taken sick about 10 o'clock, A. M.

Symptoms—Great pain in the head and stomach, nausea, high fever, and exceedingly restless. R. pulv. ipecac, grs. x. s. at once, cups to epigastrium, flax-seed poultice; an hour hence take a dose of castor oil.

August 9th—Fever still high, great headache. R. magnesia sulp. oz. j. s. at once, six cups to back of neck. R. liq. potass. citrat. oz. vj. s., a table-spoonful every two hours.

August 10th—Patient better. R. chicken soup, milk punch, lumps of ice.

Afternoon visit—R. liq. ammon. acetat. oz. ij. s., a table-spoonful every two hours, cold lotions to head, lumps of ice.

August 11th—Chicken soup, iced lemonade.

Afternoon visit—Some nausea and restlessness. R. emplast. canthar. 8x10, to epigastrium, iced lemonade.

August 12th—R. orange leaf tea, chicken soup, wine oz. vj.

August 13th—Patient bleeding from the gums, otherwise his condition is pretty much the same.

R	Pulv. alum,	grs. x.
	“ ferri sulph.,	“ xxx.
	Muc. g. acac,	oz. iiij. ℥. s.

A table-spoonful every four hours; infus. juniper. oj., use as a drink, chicken soup, wine oz. vj.

August 14th—Still bleeding profusely from the gums, and apparently from the mucous membrane of the lips.

R	Ferri sulph.,	grs. xx.
	Pulv. alum,	“ vj.
	Tinct. opii,	gtt. xxv.
	Muc. g. acac,	oz. iiij. ℥. s.

A table-spoonful every three hours, milk punch, lumps of ice.

August 15th—Still bleeding from the gums, and also had hemorrhage from the ear during the night ; treatment same as yesterday.

August 16th—Patient pretty much the same ; continue treatment, only give the medicine every four hours.

August 17th—Patient better. R. infus. pipsisewa oj., chicken soup.

August 18th—Tongue dry-coated brown, skin dry and a little fever.

R. Ol. terebinth, gtt. ix. $\frac{a}{2}$
 Tinct. opii, “ xxv.
 Muc. g. acac, oz. iij. ℥. s.

A table-spoonful every four hours ; infus. pipsisewa oj., chicken soup.

August 23d—Patient continued to improve. Discharged well this morning.

Case III.—Ward 33, bed 486.

Jacob Kleiner, aged 26 years ; came into the hospital August 22d, 1855. Was taken sick yesterday, has been in New Orleans three weeks, came here from St. Louis, has resided in the United States eighteen months.

When I first saw this patient, he had taken grs. xx. calomel, hot foot bath and orange leaf tea.

August 23d — Symptoms : Eyes tinged yellow, yellow fur upon tongue, gums tumid, lips red, pain in the head and limbs, pulse 82. Medicine of yesterday had operated eight or nine times on his bowels.

R. Ferri sulph., grs. xx.
 Spits. nit. dulc., oz. j.
 Liq. ammon. acet., oz. iij. ℥. s.

A table-spoonful every two hours, orange leaf tea, chicken soup.

August 24th—Bowels not moved since yesterday's visit, has hemorrhage from the nose, pulse 78, skin moist, kidneys acting well.

R. Pulv. alum, grs. iv.
 Ferri sulph., “ xx.
 Sol. soda bi-carb., oz. iv. m. s.

A table-spoonful every two hours ; infus. pipsisewa oj. as a drink, chicken soup, milk punch.

August 25th—Fever subsiding, pulse 78.

R. Ferri sulph., grs. xx.
 Sol. soda bi-carb., oz. iv. m. s.

A table-spoonful every two hours ; chicken soup, milk punch.

August 26th—Hemorrhage continues, urine dark colored. R. continue treatment.

August 27th—Pulse 80, sweating freely, kidneys acting well, no pain, some appetite, hemorrhage slight, continue treatment.

September 1st—Patient continued to improve and was nearly well, when I was myself seized with the fever. I did not use the alum in many cases, as I found that, in doses even as small as one grain, it produced nausea. My most usual prescription was—

Ferri sulph.,	grs. xx.
Spts. nit. dulc.,	oz. j.
Sol. soda bi-carb.,	oz. iv. m. s.

A table-spoonful every two or three hours. There is a chemical change in the mixture, forming carbonate of iron and sulphate of soda, but by shaking the mixture well the proportionate dose of iron and soda was given. I give the nitre to act on the kidneys, for if they fail in their functions, the chances for recovery are greatly lessened. When there is great pain over the region of the kidneys in the early stages of the fever, cupping gives great relief, and when the patient can bear the loss of blood, I think it advisable to use the cups. In the latter stages of the disease, I think cathartics are unnecessary, if not positively injurious. I have frequently let patients in the hospital go from three to five days without an operation on the bowels, without any bad effects resulting, that I could see; and I found that the quieter the patients were kept towards the last stages, the better for them.

The great disposition to emesis is an indication that the stomach is to be kept as quiet as possible after the third day, and if cathartic medicines are then given, the patient is extremely liable to be exhausted, both by emesis and purgation, at the very time that his too fast failing strength should be sustained. I think that hospital patients require more stimulation than those in private practice. Their constitutions are often greatly impaired previous to an attack of the fever; hence, the frequency of my prescribing milk punch, partly as a direct stimulent, partly for its nutrient properties. It also agrees with the stomach.

I think that the ammonia, iron and alum, so highly spoken of by Tyler Smith in his treatment of leucorrhœa, will prove a valuable medicine in the hemorrhagic cases of yellow fever. In ward 32, up to August 22d, I used the alum and iron treatment in nine hemorrhagic cases. But one of the nine died, the first case as reported above.

During August there were admitted into the Charity Hospital 1075 cases of yellow fever, 536 died, 526 discharged. In my wards, 32 and 33,

for the same month, were admitted 50 cases of yellow fever, of which 16 died.

Hospital report for August, 1855. Patients admitted in wards 32 and 33 :

Admitted,.....	87
Discharged,	66
Died,.....	19

INSTRUMENTAL CASE OF OBSTETRICS.

Reported by D. WARREN BRICKELL, M. D.

January 30th, 1856, 6½ A. M. — I was called by Dr. S., to assist him in a case of labor. Mrs. C., aged 22 years — third pregnancy — in good general health, though lame in left leg from an old attack of scrofulous nature, had been in labor twenty-four hours. Dr. S. had been up all night with her ; the membranes had been ruptured four hours, the os uteri being perfectly dilated at the time. Since the rupture of the same, however, the pains have been altogether inefficient, and little, if any progress has been made.

On examination *per vaginam*, I found the head at the brim of the pelvis, with its “occipito-frontal” diameter, corresponding to the oblique diameter of the pelvis — occiput to right acetabulum. The os uteri was soft and dilatable to any requisite extent. Before withdrawing my fingers, I attempted to produce flexion by pushing up the forehead, (a manipulation unsuccessfully tried by Dr. S. before I arrived,) but the effort was unavailing. I then applied the vectis to the occiput, and pushed with the fingers against the forehead at the same time, and thus readily remedied the deviation of presentation. The head being now reduced to a plain first position of vertex presentation, we determined to await the efforts of nature a little, but it was soon found, that the pains were altogether insufficient to expel the foetus, which we had every reason for believing to be large.

We now gave the patient a moderate dose of wine of ergot, and I applied Hodge’s forceps to the head in the superior strait. In the course of twenty minutes, the uterine contractions were increased in force, and

genuine expulsive pains manifested themselves. Notwithstanding the handles of my forceps approached each other in parallel lines, I found it impossible to lock them, without using such force as might have been injurious to the child. I had, through means of auscultation, found the child alive, and I was extremely desirous of delivering it safely. I therefore held the handles firmly together, by grasping them near their extremities with my right hand, and close to the vulva with my left. This latter hold enabled me to make traction directly in the axis of the superior strait, and in the course of twenty minutes, I had the pleasure of finding the head in the cavity of the pelvis, and it was not more than twenty minutes thereafter, when the child (a boy,) was wholly delivered. It was at first motionless and quite livid, but well directed efforts soon induced respiration, and it was not long before we had it in the scale, balancing eleven and a quarter pounds of iron.

The placenta was soon delivered, and both mother and child did well. The forceps left their mark on each side of the head for a few days, for, notwithstanding I did not lock them, I had made very firm pressure, and exerted considerable force in the way of traction.

Remarks— This case is a very instructive one: First, It affords an instance of deviation of presentation of the head, which resists the simplest means of rectifying it, but readily yielded to the application of the vectis. And even had the uterine contractions been sufficiently powerful for the expulsion of a child under ordinary circumstances, it seems altogether reasonable to suppose, that so large a head as the result proves this one to have been, could not have passed the superior strait in this condition of deviation. Second, The case proves clearly that there are cases, wherein although the forceps are accurately applied to the head, still it is impossible to lock them without using a degree of compression dangerous to the fœtus. Also, that notwithstanding the forceps are not locked, if they are accurately applied to the head, and carefully managed, sufficient traction to effect delivery of a very large head, may be made without the blades slipping off the head, or in any way endangering the soft parts of the mother. Third, We have in this case the fairest illustration of the great value of the forceps. Knowing well the great amount of force I found it necessary to exert, even in connection with ergotic-contractions of the uterus, I feel assured that this patient could never have given safe birth to her child, without the aid of the forceps, and I am convinced that the time during which she must necessarily have lingered in efforts at gradual expulsion, would have in every way compromised her own safety.

I will here take occasion to express my decided preference for the long forceps of Prof. Hodge, over all others with which I am acquainted. I have frequently applied them in the inferior strait, and have never had occasion to wish them one inch shorter. To the head in the superior strait, I find them equally applicable. I have now applied them in four instances, and with the utmost ease and happiest results.

AN ACCOUNT OF THE EPIDEMIC YELLOW FEVER

At Cooper's Wells, in Hinds County, Miss., during the summer and autumn of 1855,

BY J. S. BEAZLY, M. D., in a letter to E. D. FENNER.

Messrs Editors: According to request, I hand you the following interesting letter, which was kindly sent to me as a contribution to my contemplated report on *epidemics*, for the American Medical Association. Having been prevented by pressing engagements, from drawing up such a report as I should wish to present to that learned body, I shall publish in the Medical Journals, more or less of the valuable material which has been generously furnished by my professional friends in different parts of the country. I visited Cooper's Wells in November last, after the subsidence of the memorable epidemic, and must confess, I could discover no evidence of a *local cause* that I would consider capable of giving rise to such a disease. I therefore think, there must have been some *foreign influence*, or else a very *extraordinary condition of the atmosphere*, that caused the endemic fevers of the place to assume or run into the *yellow fever type*. You will perceive, that Dr. Beazley mentions the abundant prevalence of *intermittent fever* at the time of the outbreak of yellow fever. To use his own language, "the change was gradual, a running into yellow fever as it were."

The doctor appears to attach much importance to the apparently infectious communication that could be traced in every instance where cases occurred in the neighborhood, with the exception of *one family*, but strange to say, that was the only case in which the disease ran through the whole family. This would appear to prove the *necessary presence* of some *local cause* or influence at that spot, or at least, that the disease is incapable *per se*, of regenerating its own poison, and thus spreading from person to person. The

facts bearing on this point that have been observed within the last few years, really appear to be so contradictory, that it is almost impossible to get at their true meaning. I am happy to find some of my own observations and conclusions respecting yellow fever, supported by the testimony of Dr. B.; such as the close relationship between the different types of fever prevailing, and the difficulty of distinguishing them—the extraordinary mildness of the symptoms in many cases, as I witnessed in the Norfolk epidemic—attacks sometimes attended with bilious vomitings, contrary to the rule laid down by Dr. Nott, of Mobile; the beneficial effects of spontaneous hemorrhages from the nose and gums; the fatal effects of suppression of urine, etc. In short, Dr. Beazley's letter is very valuable, and I commend it to the special attention of your readers.

Yours, respectfully,

E. D. FENNER.

5 Carondelet street, April 25, 1856.

COOPER'S WELLS, March 6th, 1856.

DR. E. D. FENNER—*Dear Sir*: Agreeable to promise, I will endeavor to give you a short history of the epidemic, as it occurred at Cooper's Wells during last summer. Not having taken notes of the cases under treatment for yellow fever, I cannot enter into a minute description as to symptoms, or management in any particular case. My object will only be to give you a general outline of the prevalence of the fever at this place and vicinity.

The visitor on arriving at Cooper's Wells, will not fail to be struck with the high and elevated location of this justly celebrated watering place, the romantic scenery, and the rolling character of the country in every direction. Owing to its natural advantages in this respect, there can be no accumulation of filth, animal or vegetable; every shower of rain washing the hills clean, and free from anything that is calculated to produce disease. No swamp or low marshy places in the vicinity giving rise to malaria.

Consequently, I think you will agree with me, from your knowledge of this section of Hinds County, that there is no local cause at this locality, capable of originating yellow fever. The question then, very naturally arises, in the absence of any proof of the origin of an epidemic at this point, how was it communicated here? Whether by the transmission of goods and baggage from an infected district, or by persons having been exposed to, and inhaling the atmosphere of a yellow fever region, and coming

to the Wells, the disease developing itself after their arrival. I will mention a few facts just here, and leave you to draw your own conclusions.

A milliner from New Orleans, came to this place early in the summer, rented rooms, and opened a lot of goods for sale, and was constantly receiving and opening boxes containing ribbons, silks and fancy articles, from your city, during the prevalence of fever there. Several ladies who were frequently at her store, and bought goods, were attacked with fever, one of whom died with black vomit. This woman soon after took the fever, and also, an Irish chamber maid, and several servants who occupied adjacent rooms. On the 8th of August, (which was before the fever made its appearance in Vicksburg,) there being an increase of company at the Wells, the proprietor of the hotel went to the above mentioned place, and purchased twenty mattresses, which were shipped immediately to this place. I mention this fact, because it has been frequently remarked and reported through the country, that the mattresses were ordered from New Orleans. About the middle of August, two suspicious cases occurred, which created considerable alarm among the visitors, but not regarded as yellow fever by the attending physician, both of which died on the fourth or fifth day, with symptoms of fever, but no black vomit. Each of these cases came from a fever district a few days before they were taken sick. For a week or ten days, there was no sickness of any description. On the 23d of August, a lady from Louisiana was attacked with fever; came through Vicksburg a short time before. On the 26th of August, Dr. Pugh was attacked, (the doctor attended the cases above spoken of.) Both of these cases died with black vomit on the fifth day. The prominent symptoms in these, as well as many other cases, were severe pain in the head, back, and calves of the legs, high fever, great thirst and restlessness, sick stomach, eyes injected, skin yellow, often hot and dry, and frequently a profuse sweat; but a steady, gentle perspiration, could not, in most instances, be kept up; tympanites and suppression of urine, coma and black vomit, would generally end the same on the fourth or fifth, and sometimes on the third day. During the week that the two latter cases were sick, I saw and treated some fifteen or twenty cases of well marked intermittent and remittent forms of fever, all of whom got well, under a mild course of medication for those diseases. The fever then assumed a different type; the change was gradual, a running into yellow fever as it were, and spread rapidly, principally among the blacks.

At the commencement of the epidemic, dating from the 23d of August,

there were about four hundred persons at the Wells, white and black, exposed up to the 31st of August, when the first death took place. Yet, I only heard of two cases of fever occurring out of this large number, after they left Cooper's Wells. All who remained, were connected with the establishment, numbering fifty, white and black. Of these, four had had the fever previously, and one escaped an attack. There were forty-five attacks, and nine deaths — six whites and three blacks.

It may be well to remark, that we had valuable aid in the persons of Drs. Hubbard, Buckner and Brickell, of Vicksburg, and Dr. Cabaniss, of Jackson. And if a competency of good nurses could have been procured, I am inclined to think, that the mortality would have been diminished to half the number reported, the majority of cases assuming a mild form. I was called to see a number of fever cases, between the Wells, Raymond, Newton and Jackson, all in the same county. Whenever I was called to patients in the country, I endeavored to find out, if possible, whether they had at any time, been where the fever was prevailing. They answered me invariably in the negative. But on pressing my inquiries, I found that they had been brought in contact with goods, recently received from an infected district, either at the store, or by shipments made to them by their merchants at Vicksburg or New Orleans. Others had visited the rooms of the sick. In one family where the fever prevailed to an alarming extent, I was not able to trace the origin of the fever among them, to any other agency than the transmission of some morbid matter, through the medium of the atmosphere. The attacks here were violent. There were in this family twenty persons, white and black; nine were attacked, (seven whites, and two colored;) three deaths, two whites and one black.

This was the only place in the country that the fever spread to any extent in the same family. It has frequently occurred to me, during the epidemic last summer, that it was strange, where so many in the same family, often in the sick room, and acting as nurses, did not have the fever, if, as some writers hold, yellow fever is contagious. I could mention several instances, where only one in a large family had the fever, without communicating it to any other member, notwithstanding, the relatives mingled freely in the sick room. In many cases that came under my observation, the advance of the disease was very mild; the patient complained but little, generally of a fullness, or tight feeling in the head, a sensation of weariness in the lumbar region, tongue slightly coated, often clean, and but little fever. In several instances, it was difficult to determine at first,

whether the patient had the fever or not. But in a short time, more urgent symptoms supervened and removed all suspense with regard to the true nature of the case. In others, the attack was open and bold — high fever; severe pain in the head, neck, back and limbs, very restless, sick stomach, with bilious vomitings, etc. I witnessed one case, in which the patient at the onset of the disease became delirious — recovered after a protracted illness. In two others, hunger was a prevailing feature, each attack mild. When hemorrhage occurred at the nose or mouth, the case almost always terminated favorably. Black vomit was not common in the epidemic here, but few recovered after this fatal symptom made its appearance.

In one case that had black vomit, the discharge by the bowels seemed to be pure blood; after standing a short time, it coagulated into a solid mass. And in another who had black vomit, the dejections were precisely the same as that passed from the stomach. Each case proved fatal. Suppression of urine was always a fatal symptom. When this secretion was scanty, or not voided for twelve or fourteen hours, it was often relieved by appropriate remedies. From the appearance of sudamina, convalescence most generally followed. In one case, this eruption was superseded by a large number of boils all over the surface, from the size of a pea, to that of a hazlenut.

It will not be expected of me, from my limited experience in the treatment of yellow fever, to contribute anything new to the mode usually adopted. But a few remarks under this head, on the course pursued here, will close this communication. The treatment carried out, was principally on the expectant plan, which consisted, (after putting the patient to bed, administering foot bath, etc.,) of a gentle purge of some kind, calomel and rhubarb were used, but I saw better effects from a simple dose of oil. Of the different alkalies, lime water was preferred, given early in the attack, and continued during sickness. The object was to keep up a gentle perspiration all the time. As long as the skin acted well, nothing was done for the patient, unless symptoms called for more active remedies, beyond the use of cold drinks to allay thirst, and adding as much as possible to the comforts of the sick room. When high fever came on, with great thirst and restlessness, ext. aconite was administered with good effect, in from $\frac{1}{4}$ to $\frac{1}{2}$ gr. doses every three or four hours, in order to reduce the action of the heart, and also, for its diaphoretic properties. But this, I think, is a remedy that requires watching, as there is already too great a tendency to sedation in most cases of yellow fever. Mustard poultices to

the stomach, and enemas of cold slippery elm water repeated every four hours, I found to have a fine effect where the febrile symptoms ran high, hot and dry skin, thirst, and tenderness on pressure of the epigastric region. Very decided relief was afforded the patient in every instance. Mucilaginous drinks in small quantity, iced if desired. Cold douche to the head, stimulating frictions, as pepper and hot brandy to the extremities, when the capillary circulation were languid, were used with advantage. In total suppression of urine, no case got well. Where the secretion was suspended for a few hours, or passed in small quantity, the infusion of uva ursi, with sup. carb. of soda, was given with happy results. In fact, it did not fail in my hands to restore this function to its normal standard. No particular remedy was relied on to check the ejection of black vomit. After the febrile stage had subsided, and the period of prostration came on, nourishing diet, and stimulants to support the strength of the patient; chicken water, and arrowroot often, but in small portions; brandy, porter and ale, according to the taste. Without wearying your patience any farther, I will finish by stating the number of cases that occurred, both here and in the vicinity. There were in all, seventy attacks of yellow fever, as follows:

Attacks: whites, 40; colored, 30 — Total, 70. Deaths: whites, 9; colored, 4 — Total, 13.

Hoping you may find something in this communication that will in some degree aid you in making out your final report to the Medical Association, I am with high regard, and the best wishes for your future prosperity and happiness,

Your friend,

J. S. BEAZLEY.

SPECIAL SELECTIONS.

REMARKS ON ASTHMA.

By Prof. ROSTAN, Hotel Dieu of Paris.

As we progress in the study and exact knowledge of disease, we become more and more convinced of the falsehood of those ancient opinions, which admitted functional derangements without any organic lesion. Impressed

with this idea, I have made numerous investigations on this subject, a part of which have been published under this title: "*Is asthma in old age a nervous affection?*"

I was led to a more careful study on this subject, by observing that every winter, my wards at the Salpetriere became filled with numbers of old people, between seventy and eighty years of age, who suffered from intense dyspnoea. On examining the post mortem appearances of these subjects, I found either ossification of the large vessels, incrustations on the valves, hypertrophy of the left ventricle, or increased thickness of the base of the heart. So, that here was an active aneurism, in the language of Corvisart, produced by an obstacle to the circulatory function. Because the blood passing through vessels, having undergone these pathological alterations, must necessarily be arrested in its course, remain in the lungs, and thus produce that embarrassment of the respiration, characteristic of asthma.

Let us now make a clinical application of what we have just stated. A short time ago, a woman entered the Hotel Dieu, with a cyanosed complexion, a sunken eye and hollow cheek. She had great difficulty of breathing. There was resonance on percussion in the anterior part of the chest, the left lung being somewhat more clear than the right. The back part of the chest seemed quite normal on percussion, but auscultation discovered to us dry and sonorous ronchi, intermingled with fine crepitation, thus showing that inflammation extended to the last bronchial tubes.

We made the following diagnosis: capillary bronchitis, pulmonary emphysema, and engorgement of the lung. I may also add, that there were traces of albumine in the urine, this circumstance proving that congestion of the kidneys is sufficient to produce albumine. So, that in this patient, there was stasis of blood in all the permeable tissues. The woman died, and you now behold the post mortem appearances, to wit: The heart is considerably hypertrophied, the right cavities are dilated, and the walls thickened; the left lung crepitates under the hand, and is much distended; the right lung is much congested. So, that here we have a species of aneurism of the pulmonary cells on one side, and on the other side, rupture of the cells, and passage of the air into the intervesicular space; there is, also, engorgement from stasis of the liquids at the lower part of the lung, so that the diagnosis is completely verified.

Laennec said, that the "appearance of the lungs of a person dying with emphysema, was very similar to the lungs of frogs; in his opinion,

emphysema is almost always the consequence of a severe dry catarrh of a dry form, invading a great part of the lung." On this account, we almost always find on opening asthmatic patients, more or less dilatation of the pulmonary cells.

This observation, said he, gives us a physical explanation of the mechanism by which the pulmonary cells are dilated. In the dry catarrh, the smaller bronchial ramifications are often completely obstructed, either by tough mucus, or by thickening of the mucous membrane itself; now, as the inspiratory muscles are powerful and numerous, whereas, expiration is only produced by the elasticity of the parts, and the feeble contraction of the intercostal muscles, it will thus happen that during inspiration, some air will be able to overcome the resistance of the bronchial tube, while, on the contrary, expiration would be insufficient to force it out again. Air becoming thus accumulated in the bronchial tubes, would, by its expansive force, produce dilatation of the pulmonary vesicles in which it was confined.

Such being Laennec's theory on the subject, let us now turn to the facts, as I observed them at the Salpetriere.

The symptoms were evidently intermittent, and the aged were most subject to those fits of suffocation during the winter. So much so, that when the temperature fell to 25 degrees fahrenheit, we were in the habit of applying for a certain number of extra beds. It would seem that the cold drove the blood from the skin to the central parts, so that a larger quantity of blood was thrown upon the circulation, producing congestion of the lungs, and consequently asthma.

As a general thing, it is not advisable to bleed persons advanced in age, for it may prove more fatal than the disease itself; but when the patient is very strong and hardy, it may be well to draw a small quantity of blood from the vein, as in diminishing the total quantity of blood, the circulation will become freer, and the pulmonary congestion will diminish.

It was observable, that those old patients improved rapidly as soon as the spring returned, their breathing becoming free and easy, which seems to us proof positive, that the anatomical lesion, the cause of asthma, was an impediment in the circulation, produced by the influence of the cold weather on the capillary vessels of the surface.

In Laennec's opinion, asthma is always accompanied by pulmonary emphysema. On the authority of his great name, this was long admitted

without any question; but how can emphysema account for the difficult breathing, and the intermittence observable in asthma.

Other authors have said, that emphysema is caused by repeated attacks of bronchitis, and this may be the case.

In my opinion, the most frequent cause of asthma being an obstacle to the circulation, it might be objected that auscultation and percussion, would reveal the existence of any disease of the heart. But we know that these invaluable means of diagnosis, are not always unerring in their application, or certain in their results. How often has the post mortem examination revealed to us hypertrophy of the heart, which, during life, had escaped the most careful examination, and the most scientific investigation.

Previous to the application of auscultation to the diagnosis of diseases of the heart, Corvisart had brought the study of rational signs to a great degree of perfection. He was the first to insist that orthopnoea, cyanosis and œdema were symptomatic of disease of the heart, and in his opinion, infallible signs.

At this day, we are not content with these symptoms of more advanced disease, for we seek with care the smallest and most delicate deviation in the sounds of the heart, and give them a pathological signification.

But at the same time that we give due value to these physical signs, we must also beware of attributing to them undue importance. I have often seen among the old patients of the Salpetriere, the heart beat with such force, as to be perceptible through the bed clothes, yet, when questioned, they did not seem aware of their abnormal condition, and denied the existence of any organic disease.

Among persons advanced in age, asthma is generally accompanied with ossification of the thoracic aorta; now, we may readily imagine as a consequence of this state of things, that congestion of the different viscera pneumonia, pleurisy, vertigo, head ache, etc., will be among the sequelæ.

It has been said, that œdema of the lower extremities is a consequence of disease of the right side of the heart, but I have repeatedly seen infiltration of the lower extremities, without any disease of the right side, the obstacle to the circulation being entirely confined to the left side.

From these considerations, I draw the conclusion that pulmonary emphysema is a secondary phenomenon, caused by an impediment in the circulation.

PROFESSOR CRUVEILHIER ON THE SIMPLE ULCER OF
THE STOMACH.

[Continued from last Number.]

PART II.

Clinical Characters and Pathological Attributes of the Simple Ulcer of the Stomach.—Although we cannot always establish in a positive manner, the diagnosis of this lesion, yet, we can easily suspect its existence, and this, with more or less probability. Proceeding for instance by exclusion and elimination, we can very often reach a degree of probability, which is next to certainty.

At its origin, the simple ulcer of the stomach has no characteristic sign, unless one of its first symptoms be the vomiting of black matter. There is a sensation of uneasiness in the epigastrium, to which are also added the following symptoms :

1st. Sharp pain limited to a small space, that of the xyphoid appendage, accompanied at the same time with a corresponding pain in the vertebral column ; indeed, this is also characteristic of gastralgia, but whereas, in the latter, the symptoms are intermittent ; in the simple ulcer, the pain is constant.

2d. Vomiting of black matter, and black passages ; these symptoms belong equally to the simple ulcer, and to cancer of the stomach.

3d. The differential diagnosis between cancer and the simple ulcer, is drawn from the nature of these two affections, and the different effects of diet and treatment on the progress of the disease. In cancer, strict diet is useless ; in fact, it might become injurious if pushed too far ; on the contrary, in the simple ulcer, diet is the principal basis of treatment, so much so, that when properly applied, the patient improves rapidly.

Therapeutical Character of the Simple Ulcer of the Stomach.—What course of treatment should we adopt for an ulcer, situated on the surface of the body ? Simply to prescribe absolute rest, and remove all local causes of irritation. Now, the stomach must have absolute rest, so far as remedies are concerned, though of course, some nourishment must be kept up, and in this lies the whole remedial method.

There can be no doubt, that the instinct of the stomach varies according to the nature of disease, and this is a subject, which to the physiologist, is replete with interest.

We know for instance, that in certain conditions of the mucus mem-

brane, the human stomach, which is naturally omnivorous, changed its nature and tolerates only one kind of food, so that it becomes either exclusively herbivorous, or exclusively carnivorous. There is yet another frequent change in the instinct of the stomach, by which this organ, whether in youth or in old age, seems to return to its first state — that of infancy, and bear no other kind of food but milk.

This is especially the case with the simple ulcer of the stomach, milk being the only food which can be borne, and the magical salve which heals as if by enchantment. From the very first day of its exclusive use as an aliment, the pain diminishes in the epigastric region, and it soon completely disappears; the patient hails the relief with delight, and his strength speedily returns.

But it sometimes happens, that when too long continued, milk diet becomes less agreeable to the taste, and more fatiguing to the stomach. In this case, we must associate with it some other article of food, on the nature of which, we must consult, in some measure, the taste and instinct of the patient. As to medicines, strictly speaking, they are of very little use. The bitter tonics, and the preparations of iron, are especially contra-indicated, opium itself is of little use, unless gastralgia exist as a complication of the other disease.

The means which have appeared to exercise a favorable influence on the progress of the disease, are the following: Eau de seltz, ice, alkaline remedies, and especially the phosphate of lime, prepared by the calcination of bone, and reduced to impalpable powder, alkaline baths, cold ablutions on the surface of the body, and at other times, warm ablutions, warm baths, stimulating frictions, revulsive applications, such as blisters or issues to the epigastric region, etc.

But, we repeat it, the great problem in the treatment of the simple ulcer of the stomach, is to find some kind of food which is borne by the stomach without pain, and in the great majority of cases, milk diet answers this purpose admirably well; in fact, it may be considered a specific in this disease, its great virtue being probably the absence of all stimulating qualities.

EDITORIAL AND MISCELLANEOUS.

THE NEW ORLEANS SCHOOL OF MEDICINE.—Under the general law of the State of Louisiana, an institution has been duly organized and incorporated under the style and title of the "*New Orleans School of Medicine*," with full powers to impart medical instruction and to grant diplomas to such as may be deemed worthy of the same. In a short time, a full and comprehensive prospectus will be issued, in which will be set forth a plan of medical education which, we venture to assert, will meet the unqualified approbation of the profession throughout the country. An elegant and commodious edifice is in process of construction, and will be ready for use before the beginning of the lecture season; and every effort will be made to supply all the material necessary for the most satisfactory demonstration of the various branches.

The announcement of the establishment of a new Medical School in the city of New Orleans, will excite no surprise amongst our readers; that emotion has long lingered on the strange phenomenon, of the existence of but one such institution, in a place of all others the most fertile in the resources necessary to the acquirement of a complete medical education. With clinical advantages unsurpassed, if equalled, in the world, and with opportunities for the study of pathology and anatomy in all its phases, such as are elsewhere unknown, it is strange indeed that the profession of New Orleans should have so long remained inactive. Not that we mean one word of detraction from those who have been working in the mine; on the contrary, we are proud to acknowledge that they have accomplished much; but we are surprised, that in a mine so rich, there should as yet have been but one shaft sunken. Competition is truly said to be the life of trade, yet it is no more so of trades than of professions. Not that groundling lust for gain, which prompts to the richer boat to carry passengers and freight for nothing, and feed them, in order to drive an honest but poorer competitor from the trade; but that spirit of competition which stimulates to improvement in speed, safety, accommodations, and thus, while thriving, confers equivalent benefits on the community whence support is derived. It is in this spirit of honorable rivalry, that the New Orleans School of Medicine enters the lists, and on this fair basis she is confident of a liberal support from those to whom she promises equivalent benefits.

Progress is our motto. The whistle of the locomotive has at last aroused New Orleans from her slumber in the prodigal lap of nature, and she awakes to learn from her prosperous neighbors, that more is to be accomplished by well directed energy and industry, than by a proud reliance on mere natural advantages. The mighty Mississippi is ever floating wealth to our door, but the same current sweeps as steadily beyond us, and is as ready to rob as to enrich us, if we make no effort to avail ourselves of its liberality.

The annual pilgrimage of Southern young men to the medical schools of the North is an unnatural and humiliating sight, yet we have but ourselves to blame for it. So far from there being a reason why New Orleans should be restricted to a paltry class of two hundred students of medicine per annum, there is every possible reason why she should have treble that number; and to all of them she can afford greater facilities for the proper acquirement of a medical education than any other city in the Union.

The profession of the South-west has long been looking for the enjoyment of the good fruit which must necessarily ripen on the tree of honorable rivalry, this day planted in our great city. Whether the growth of this tree shall be fast or slow our professional brethren must determine. To them alone must we look for support in our effort to advance the cause of medical education in the South. Their smiles and their applause will be as sunshine and shower to our newly-planted twig, and in lavishing these, they will be doing the least that can be expected of them.

TYLER SMITH'S LECTURES ON OBSTETRICS. — *Lecture III. — Internal Organs of Generation.* — Uterus is by far the most important of these organs. The os uteri is the outlet for the catamenial secretion, and the products of impregnation; and the inlet with respect to coitus and the fertilization of the ovum. The great bulk of the mulliparous uterus is in its walls. The canal of the cervix uteri contains about ten thousand mucous follicles, interspersed throughout the rugæ or palmæ plicatæ, and may be considered, as in effect, an open gland. These rugæ are evidently to provide for dilatation of the cervix in pregnancy. "The objects of the cervical secretion, are to keep the cervix impermeable in the ordinary state, to provide a fit medium for the ascent of the spermatozoa—to furnish the plug which fills the cervix during pregnancy, and to secrete the mucous which lubricates the os uteri and vagina during labor." This secretion is alkaline, and that of the external part of the os is acid. The limits of

these different secretions are determined by the presence of squamous or cylindrical apithelium.

The thinnest part of the uterine walls, is at the entrance of the fallopian tubes, and the thickest at the fundus, and opposite the middle of the triangular cavity.

The most remarkable part of the uterine structure, is the mucous membranes of the cavity of the body. In health it is pale, about a line in thickness, and closely adherent to the walls of the uterus. This membrane is studded with mucous glands, which open one or two together on the surface. These glands, most probably, elaborate the material, of which the decidua reflexa is formed.

The mucous surface of the uterus is covered by epithelium, which is cylindrical and ciliated in the cavity of the body, not always so in the cervix, and squamous in the vaginal aspect of the organ. The cilia of the mucous surface vibrate from below upwards, and probably aid the ascent of the spermatozoa. Club-shaped papillæ are found every where under the epithelium. These villi are larger within the os uteri than upon its external surface, but less numerous in the upper part of the cervical canal and in the cavity of the body. At the os uteri, they appear to possess special sensation of a sexual character.

“According to Kolliker, Kilian, Rainey and others, the substance of the uterus is made up of connective tissue, and a vast number of fusiform fibre-cells, fibre germs, or embryonic nucleated cells, having the power of development into non-striated involuntary muscular fibres.” Impregnation, or any condition of irritation of the uterine walls, causes the growth and multiplication of these cells, and it is to their development, that the gravid uterus owes its contractility. “Cases are met with in which the uterus expels coagula, or the dysemenorrhœ membrane, by contractile efforts, even in the unimpregnated condition.” It is probable, that by relaxation of the fibre cells of the os and cervix, and contraction of those of the body, the os uteri may be opened, and matters expelled from the cavity of the virgin uterus.

The differences between nulliparous and multiparous, as applied to the uterus, are insisted on by M. Paul Dubois. “Nulliparous” is to be preferred to “virgin,” as intercourse without impregnation has no effect on the anatomical characters of the uterus. “The uterus which has been fully developed by gestation never returns, unless as a morbid condition, to the size of the nulliparous organ.” The changes of shape and size

which the multiparous organ has undergone, are of great interest in a medico-legal point of view. Meckel gives the weight of the nulliparous organ at seven or eight drachms, and the multiparous at an ounce and a half. All the diameters of the multiparous organ are increased; its posterior surface is more rounded; its fundus is convex, instead of being flat; the vaginal portion of the neck is more conical and elongated; the os is rounded or puckered in shape; the depression felt by the finger is larger and deeper. The interior of the uterus is much changed in appearance. Instead of the triangular cavity, we have an oval; the cavity is enlarged, and the os internum is less distinct; the angles in which the fallopian tubes enter have disappeared; the canal of the cervix is shorter, and the rugæ, to some extent, obliterated.

The fallopian tubes are lined with mucous membrane, which is in folds, and covered by ciliated cylindrical epithelium, the movements of the cilia being from the ovarian, towards the uterine extremity. The mucous membrane is thin, and devoid of glands. The fallopian tubes are the oviducts of the human economy. The application of the corpus fimbriatum, to the very ovulum impregnated, is truly wonderful, but not more so than what occurs in the case of the polyp, the filaments of the oral fringes, of which turn with precision to foreign matter placed anywhere on the surface. "It is evidently one of those reflex actions, in which the excitor and reflex stimuli are in such exact and exquisite relation, as to simulate the perfect effects of volition." Gendrin and others have found the fallopian tubes firmly grasping the ovaria during menstruation.

The ovaria are the analogues of the testes in the male. There are generally ten to twenty, or more, graafian follicles in, or near a state of maturity; but many more smaller ones are visible under the microscope, and passing on to a state of maturity. The ovaria must be considered as two follicular glands. Each graafian follicle represents the ultimate tubule or follicle, of a secreting gland, from which it differs only in being closed, except at the time when it discharges its contents."

Lecture IV. — *Ovulation*. — "It may be considered as an established fact in physiology, that during menstruation, or the rut or heat of animals, graafian follicles are ruptured, and ova discharged." In the human female it is believed, that the ovule escapes at or about the termination of the menstrual flow. Sometimes one escapes from each ovary, or more than one from either side. Premature ova may escape before puberty, and graafian follicles may be ruptured between the menstrual periods. Letheby

and Hyrtl have detected the ovule in the fallopian tubes of women dying during, or shortly after, menstruation. In infertile ovulation, it is uncertain whether the ovule is decomposed or discharged entire.

"The substance of the corpus luteum is soft, fleshy and friable, and is permeated with numerous vessels from the external surface of the ovisac, so, that the true corpus luteum, admits of being injected from the vessels of the ovary. It should be said, that although little difference of opinion exists as to the appearances presented by the corpus luteum numerous hypothesis have been advanced as to the mode in which the yellow layer, constituting its chief bulk is formed. The latest evidence appears, however, to be in favor of its origin in the membrana granulosa. Dr. Lee contends, that it is a deposit external to the living membrane, and Mr. Wharton Jones, joins him in his opinion. Knox, Miller, and Dr. Dalton, regarded it as an hypertrophy of the outer membrane, while Kolliker considers it to depend partly upon enlargement of the epithelial lining, and partly on that of the internal or fibro-cellular layer of the ovisac." "In the case of the virgin corpus luteum, other graafian follicles are passing on to maturity, *pari passu* with its development, whereas, in the true corpus luteum the occurrence of gestation, suspends the maturation of ovules."

EXCERPTA.

OPERATION OF OVARIOTOMY SUCCESSFULLY PERFORMED. — *By Ezra P. Bennett, M. D., Danbury, Conn.* — The subject of this operation was a young lady, 23 years of age, unmarried, of good constitution, and has generally enjoyed good health until about two years since. At that time, she perceived a fulness in the lower part of the abdomen, which gradually and steadily increased, notwithstanding the efforts of several physicians to dissipate it. She consulted me, for the first time, about the middle of December, when she presented the appearance of a woman at the full period of gestation. Her general health was yet good. She attended to her usual duties; ate well; digested and slept well until of late, when she complained of difficulty of breathing and cough, on lying down, occasioned by the pressure of the distended sac upon the diaphragm. She also men-

struated regularly. I diagnosed ovarian dropsy, and proposed an operation, to which she readily assented. I selected the time of the operation immediately after the cessation of the menses, thinking that, at this time, there would be less fulness of the vessels of this part, and consequently, less liability to inflammation. The day previous to the operation, I ordered her bowels to be evacuated by a dose of Epsom salts. On the 12th of January, 1856, with the assistance of my son, Wm. C. Bennett, and in the presence of several physicians, I performed the operation. I made an incision, only three inches in length, (being determined to get it through as small an opening as possible,) through which I introduced my fingers as far as I could reach. I found no adhesions (and in fact, there were none of any importance.) I then drew out the sac, turned my patient over on her face, on the edge of the table, and opened the sac, first with a trocar, then with a knife. In this dependent position, I found but little difficulty in so manipulating as very soon to empty the sac of its contents, which I then drew out, passed a double ligature through the pedicle, and cut it off. I closed the wound by three stiches, bringing the ligature out at the inferior angle of the wound, and dressed in the usual manner. The patient recovered without a single unpleasant symptom.

In regard to this operation, I would suggest a few remarks to those who may hereafter venture on it. In the first place, let the new beginner never venture on a doubtful case; but select, if possible, one in which there is a degree of constitutional vigor, not old, or reduced by frequent tappings. If possible, always operate before your patient is tapped at all, for two reasons. 1st. Tapping is apt to be followed by adhesions, more or less extensive, which of course increases the danger of subsequent inflammation. 2d. The fluid being usually albuminous, the patient is reduced in strength in direct proportion to the number of tappings, and is therefore less able to bear the shock of an operation of such severity. It is generally easy to determine, by the progress of the case, whether it is an encysted or abdominal dropsy; but even if you cannot be certain, you lose nothing by cutting carefully into the abdomen. If you find a sac, well and good, go on; if not, why you can let out the water, and close up the wound. Operate early in the disease as possible. Evacuate the bowels freely the day previous, then keep them closed by opium, or some of its preparations, for five or six days. If the patient menstruates, operate two or three days after the menses cease. Enjoin strict regimen and quiet. Keep the

room of uniform temperature. Draw off urine for the first five or six days. Use sufficient anodyne to allay all pain, and use as little chloroform as possible in the operation.

CENTRAL LACERATION, AND TRANSIT OF THE INFANT THROUGH THE PERINEUM—*By John F. Lamb, M. D., of Frankfort, Pa.*—Prof. Simpson records (*Edinburgh Jour. Med. Sci.*, July, 1855,) an example of this rare lesion, as the cause of perineal fistula, and proceeds to say, that he can find only two other cases of similar character recorded. His language leads to the inference, that it is this particular lesion which is rare, independent of its result, in fistula. I may be permitted to add one case, resulting in perfect recovery.

In June, 1821, I was called to attend a primiparous woman, whose age was about thirty years. The pelvis was well formed, and the presenting part was found to be the head; ascertained ultimately to be the occiput to the right sacro-iliac symphysis. The labor was progressing favorably, though for some hours the parts seemed unyielding, and I found it impossible to correct the presentation. As the head advanced, and the pains became strong, my attention was directed to the perineum, which became violently stretched, and I presume, in an unguarded moment, when the support was not where it should have been, the infant seemed really to have jumped through the perineum! Being then a mere novice in obstetrical practice, at the instant I did not understand the nature of the accident. A single pain had expelled the child, which was of ordinary size, and full of life. My first business was, to secure and divide the cord, and then to ascertain the nature and extent of the injury, which was directly manifest. The funis umbilicalis was carefully withdrawn from its unnatural channel, and brought out through the vagina. The placenta was detached and expelled without delay or difficulty—when, upon a more careful examination, I found the rent in the perineum very nearly central; the fourchette and the sphincter ani were uninjured, and the accident was attended with very little hemorrhage. A stitch appeared to me to be unnecessary. Having a reliable nurse, I satisfied myself by placing the patient comfortable on her back, with the thighs in close apposition, and impressing on both patient and nurse, the absolute necessity of maintaining that position for several days.

On examination at the close of the fourth day, I was pleased to find

the edges of the wound adhering with firmness. The patient made a very good recovery, and, indeed, the whole case was attended with so little trouble, that she was scarcely aware that anything very unusual had happened.

The union was firm and perfect, and this patient subsequently gave birth to several children without the recurrence of accident. — *Am. Journal*.

CASE ILLUSTRATING THE INFLUENCE OF LOCALITY UPON ASTHMA. — M. Trousseau, in a clinical lecture reported in the *Gazette des Hôpitaux*, No. 34, 1853, relates the following striking example of the influence of locality upon asthma:

“A young man, æt. 28, a native of St. Omer, was subject to repeated attacks of asthma while resident there. He went to London, and resided in the City for two years, and the whole of this time he was free from his malady. He afterwards returned to his native town, and in four days was as bad as ever. After bearing his troubles for three months, he went to Paris, to consult M. Trousseau, and in a short time was well. At this time, he made a summer trip to Versailles, and there he was immediately attacked by his old enemy. He returned to Paris, and for six months continued free. After this, being obliged to return to St. Omer, he was again attacked so violently, as to be thought to be dying. By Trousseau’s advice, however, he was carried on a hand-barrow to the railway station, and brought again to Paris, where his sufferings once more terminated.”

[We have known some equally remarkable examples of this. A gentleman of Baltimore, who was a great sufferer from asthma, went to Europe by the advice of his physician, in hopes of obtaining relief from the change of air. He remained abroad for three years, during which time he was entirely free from his old malady. The first night after his return home to Baltimore, he had a severe attack, and continued a sufferer so long as he lived.

Another gentleman, of Baltimore, who suffered severely from asthma, removed to Philadelphia, where his attacks were comparatively mild and infrequent. But whenever he visited Baltimore, as he occasionally did, to see his relatives, he severely suffered from his old enemy. — *Ed. Am. Journal*.

ON WORMS.—*From the German. Translated for the “Western Lancet.”*
—Man boards and lodges within his body a great number of worms.

There are known over twenty kinds of worms, which have been found not only in the intestines, but also in almost all the other organs of the human body, and many of them in places to which no external access exists, partly in the most hidden inner organs, as in the brain, in the eye, in the muscle, in the liver, in the kidneys, etc. Many physicians assure their patients that worms, as the lumbricoides, ascarides, and the tape worms, are generated at the expense of the substance of the body by a morbid disposition, which can be corrected by proper remedies. The investigations of our days have put an end to such theories. The extraordinary fecundity of most of the intestinal worms was already known in former days. A single tape worm generates annually several millions of eggs; a lumbricoid perhaps surpasses it yet in fecundity. The giant strangler, *strangulus gigas*, which fortunately very rarely is found in the kidney of man, but when there, unavoidably causes death by the destruction of the tissue—this worm, which is probably one of the most sterile, yet produces at least hundreds of thousands of eggs in one year. And this tremendous production of eggs is not limited to one time, as is the case with many other animals; but the lumbricoids and other round worms live to a certainty several years, and the formation of eggs or living young ones goes on uninterruptedly. The propagation of the tape worm is almost unlimited; for we know now, that the small head with its thin neck, which clings firmly to the wall of the intestine, is the productive animal proper, which develops at its hinder end by germination always new although in many respects incomplete animals, which continue attached to the mother, and thus appear as joints; each tape-worm-joint is an independent sexual animal, for each of these joints has male and female generative organs; each one generates thousands of eggs, and when these eggs are ripe, the joint, or a series of joints, drop off, and pass off with the contents of the intestines, to begin a new life without, and to go through new stages of development. In the mean time, the firmly-adhering head causes the shoots of new joints, and the severed ripe joints are replaced by immature new ones, which gradually grow and develop. If we consider that the mature joint of a *Tænia Solium* has the length of only a quarter of an inch, that such a tape-worm may grow to the length of perhaps 100 feet, and that each of the 4800 joints, which would compose such a worm, is a mother perhaps of 1000 eggs, we can form an idea of the immense productive faculty of such a very little head. Hence a person afflicted with tape-worm carries with him in his body a constantly producing source of microscopic tape-worm eggs, which he deposits everywhere with the con-

tents of his bowels, and with which again dung-pits and lay-stalls are filled, and which are carried away everywhere in manure and the drainings. The farmer who dungs with such manure, or irrigates with such drainings his fields and meadows, the gardener who waters with such dung-water his herbs and vegetables, they all sow unconsciously worm-eggs into the earth, upon plants and kitchen vegetables. The drainings of water-closets and privies, which have been used by tape-worm patients, carry hundred thousands and millions of microscopic little eggs into creeks and rivers, where they are perhaps swallowed by their inhabitants, or perhaps deposited on their banks.

Besides all this, these eggs have a vitality, which almost surpasses that of the seeds which were embalmed with the mummies. They resist the most destructive agencies found in nature. Excess of dampness has no more effect upon them than complete exsiccation; heat and cold prove ineffectual; the acrid leys and salts of the drainings and decomposing substances do not destroy their power of development. Only boiling heat, which does not exist in nature, only concentrated acids and alkalies kill these eggs. The time of their duration as eggs has not yet been ascertained, but they can probably last for years, until the favorable conditions for their development are realized. Hence we see already in the beginning of the multiplying process two essential guaranties of propagation established, although under unfavorable external conditions, viz., the generation of numberless germs, and the indestructibility of these germs under ordinary circumstances.

The tape-worm egg gets in various ways to the place of its destination. How many insects and larvæ of insects live in mud, in dung-water, in foul substances; how many other animals, again, in the ground, on plants in the water, where the eggs are carried? There is probably the larvæ of the cockroach, which in dung and manure receives the tape-worm seed, and as bug carries it into the meal-box of the baker and under the flour; here it is, perhaps, the snail, which with the lettuce-leaves appropriated to itself such little eggs, and allows them a temporary shelter in its respiratory cavity, in which they nestle, until the snail is eaten by another animal. With green parsley, lettuce, and all the unboiled herbs, which are used in our kitchen and placed upon our table, we bring, perhaps, a quantity of these microscopic tape-worm eggs into our intestines, which adhere to them in spite of our cleanliness and careful washing.

With the grass which it eats, the sheep swallows the tape-worm egg,

which comes from the excrements of the shepherd's dog, and which develops in its brain as magot (*Coenurus cerebralis*), until a wolf, or another carnivorous animal, eats the brain-sick sheep, and the (*Coenurus*) magot gets with the prey into the stomach and bowels of the marauder, where it develops into tape-worm.

Thus there are innumerable ways for these invisible little eggs to get to proper places for their entire or partial development. But with even this, all means are not yet exhausted. From the egg slips forth a young one, formed of soft granulous substance, which has the power of expanding and contracting in all directions, and scarcely larger than a blood-globule, is armed with six little hooks, which can be arbitrarily moved and directed backward and forward. By means of these hooks, this diminutive creature bores itself through all tissues, without leaving a trace of its passage. With the anterior stiletta, like hooks, it punctures, with the two lateral pairs it presses against, increases the opening, pushes itself forth and squeezes through by contraction and expansion. From the intestine it can thus slide into the abdominal cavity, into the muscles, into the blood-vessels, creep with the blood through the vessels of the body, again work itself out of the vessel and settle anywhere in the body, perhaps in the brain or in the muscular substance.

There new metamorphosis often await our little worm. The animal, in which it is fastened up, is perhaps not its proper and definite abode; the organ in which it fixed itself not fit for its sexual development, from which it can thrust off its eggs and joints into the outer world. Now the young tape-worm gives up wandering, it encapsules itself, increases, its hinder end grows bladder-like large, fills itself with albuminous fluid, it becomes an hydatid, a cysticercus. In this manner, transformed to an incarcerated life in a narrow cell, the cysticercus, buried in the interior of an animal, can await for years a development, which often only accident offers.

In other cases, however, in compensation of the sexual generation which it never accomplishes in an encapsuled state, it gets the faculty of sprouting. Its vesicular tail becomes the place where numerous little heads and necks sprout, and the colony, which thus originated by sprouting, and often contains thousands of little heads capable of development, expands more and more, grows at the expense of the neighboring organs, which suffer by the pressure and diminish. Thus the health of the inhabited animal becomes impaired, which, sick and debilitated, now the sooner becomes the prey of a rapacious animal. There in the intestine of this animal is at last

the proper place for the sexual development of the tape-worm. The vesicular tails are cast off, every head becomes free, sucks and hooks itself somewhere on the intestinal wall and shoots forth joints, which generate new eggs, and thereby cause a new cyclus of life to begin.

In this extract from a physiological essay we add the following very interesting experiment made by Dr. F. Kuchenmeister, of Zittau, as reported by him in the *Vienna Med. Wochenschrift*, 1855. 1. Proving that *cysticercus cellulosæ* is transformed within the human intestinal canal into *tænia solium*. Through the assistance of medical friends, Dr. K. had the chance to experiment upon a criminal condemned to the guillotine, although the shortness of time allowed (from six to eight days) gave him but little hope of success. The delinquent was caused to swallow, in a dish of soup, seven pieces of new *cysticercus tenuicollis* from the mesentery of a pig, and ten hours before six pieces of *cyst-pisiformis* from a rabbit. 72 hours before his death he took 12 pieces of *cysticercus cellulosæ* (measles), from raw pork in a blood pudding, and 60 hours before his death, 18 pieces in a soup of rice; 36 hours before his death, 15 pieces in a noodle soup; 24 hours before his death, 12 pieces in a sausage; and again, 12 hours before his death, 18 pieces *cyst. cellul.*, hence, altogether, 75 pieces, which after the animal had been killed had been exposed to the open air, about 72, 84, 108, 120, 132 hours. The execution took place 120 hours after the administration of the *cyst. tenuicollis*, and 72 hours after the first, 60 hours after the second administration of the *cysticercus cellulosæ*. Dr. K. could not examine the intestinal canal until 48 hours after the execution; it was done 60 miles from his home in the anatomical rooms, in presence of several professors and demonstrators. He found in the duodenum a little *tænia*, which with its proboscis thrust in, was attached to the mucous membrane of the intestine. Put under the microscope, one saw distinctly the snout, upon which, also turned forward, sat four hooks, very loose, which after careful comparison with other preparations, proved to be the hooks of the *tænia solium*. Besides this, he found yet three *tænia solium* in the duodenum, and six more in the washings, but these without hooks. With the exception of a single one, which was from six to eight millimeters long, and had a very nice, scarcely yet cicatrized appendage, all the others were from three to four millimeters long, and showed at their hinder end the little S-shape-tailed indented contraction. Of the last administrations no trace was found, probably because the *cysticercus cellulosæ*

were introduced into the intestinal canal when already dead, and the result is to be attributed to the two first administrations only. Dr. K. now infers, 1st. That *cysticercus cellulosæ* is the scalex of the *tæniæ solium* laminis. 2d. That the infection with *tænia solium* is the same as with other *tænia* originating from *cysticercus*. 3d. That we get infected by introducing *cysticerc. cellul.* in raw or cold meats, etc., into our stomachs. 4th. That it is proven by experiments made by order of the government by Dr. K. and others, that *cysticerc. cellul.* can be generated in the hog by feeding it upon the joints of the *tænia solium*. 5th. That they have not succeeded to generate *cysticerc. cellul.* in dogs and sheep by feeding them with the ripe joints of the *tænia solium*.

Dr. K., in a former essay in 1852 (*Prager Fierteljahrsschrift*, vol. 33, p. 106), has published the results of his very interesting researches, experiments and observations regarding the generation and propagation of *tænia*, etc., to which we call attention.

We conclude our gleanings upon this subject by adding the latest remedies for the destruction and expulsion of *tænia* from the intestinal canal.

1. *Kousso*, or *Brayera anthelmintica* has been known to the profession for several years. According to the experience of H. I. Alphert's (*Lederl. Lanc. July, Aug., 1853*), neither the watery nor the ethereal extract of *Kousso* has any effect, but the virtue is in the volatile parts of the *Kousso*-flowers. He has administered of the pulverized flowers from five to seven drachms, even twelve drachms, without bad effect. It acted in from one-half hour to twenty-four hours.

Saoria, the ripe dried fruit of *Mæsa pieta*, Kachstetter found in Abyssinia, imported and introduced into commerce in Hamburg as early as 1850. Strahl, in a paper read before *La Société de Médecine in Paris*, asserts that it is superior in its effect to *Kousso*, being mild, yet certain in killing and expelling the worm. The dose is one ounce of the powder of *Saoria* in gruel or sweetened water, in the morning before breakfast. Evacuations follow two or three hours afterwards, and in them the dead *tænia*.

Tatze, or *Zatze* or *Zazeh*, the fruit of *Myrsina Africana*, L. Strohl, in the above mentioned paper, says, *Tatze* acts less mildly than *Soaria*, but is a strong and sure *tænifuge*. The ordinary dose of the powdered fruit is half an ounce in aromatic tea or water. If no stools follow within three or four hours, castor oil has to be administered. (*See Braithwaite's Retrospect*, vol 30. page 65, on *Tatze*.—*Western Lancet*.)

LINEAR CAUTERIZATION OF THE THORAX IN ASPHYXIA.—M. Faure's proposal is founded upon numerous experiments on animals asphyxiated, in a variety of modes, and on one case of asphyxia by charcoal, occurring in a girl. The actual cautery, he observes, has long since been employed in distinguishing real from apparent death, and for the purpose of resuscitation; but it has not succeeded, owing to the absence of proper method and due perseverance. When properly used, however great the danger, as long as even the feeblest respiratory movements continue, it will establish a favorable reaction, and to this end is far superior to all other means. The following are the conclusions arrived at: 1. When the heart has entirely ceased to beat, or when the pulsations are fewer than three in five seconds, death is certain, whatever may be done; but, except in these very extreme cases, cauterization may restore life. 2. Deep and long parallel lines must be traced, by a strongly heated iron, along the upper and lateral parts of the chest, opposite the four or five first ribs, this being the part of the body that longest retains the faculty of being stimulated. 3. The first effect is a muscular contraction, which is quite local, and without sign of pain; the ribs then move, the thorax enlarges, and inspiration becomes more ample. Sometimes more than a minute elapses before any sign of sensibility can be induced, even by the most intense burn. 4. When the general sensibility has become aroused, it is of the highest importance to keep it excited for a long time; and to this end flagellation is the easiest and most certain means. It must be persisted in for a long time, and the patient must be well watched. 5. Frequently, asphyxiated persons die after having been restored; but this must be referred rather to the shock sustained by the economy, in consequence of the suppression of respiration, than to the introduction of any poisonous principle, inasmuch as such death has occurred in persons who have not been exposed to any toxical influence, as in those drowned.—*Comptes Rendus*, tom. xli. p. 308.

CROUP AND ITS METHODS OF TREATMENT.—Dr. Honerkopff has recently published a paper, in which he extols the administration of the sulphate of copper in this disease. He has used this substance in 99 cases of croup, 77 of which recovered; and the total quantity administered by him to these patients was 2846 grains, or, on an average, $31\frac{1}{2}$ grains each. He has never seen any poisonous effects result from its use, although one child got 27 grains daily for a week, or in all 216 grains; and another, $4\frac{1}{2}$ years old, took 150 grains in 7 days, and a third, aged $2\frac{1}{2}$ years, 120 grains in three

days. No inflammation, gangrene, or other bad symptoms took place. In 8 out of the 13 cases which proved fatal, there were either other diseases co-existing, or the author was called to see them too late, so that he considered that his remedy failed in only 5 out of the remaining 82 cases. The mode in which he administered the salt was, to dissolve from 6 to 8 grains in one oz. of water; and, according to the age of the patient, and the severity of the vomiting induced, to administer, more or less frequently, from a teaspoonful to a tablespoonful of this solution, until vomiting occurred. The nature of the vomiting should always regulate its administration; for the induction of vomiting is absolutely essential for the therapeutic action of the remedy, as it has a kind of specific influence on the disease. The more severe the case, the more frequently does the author administer the doses of the solution—giving them first at intervals of from 10 to 15 minutes. After from 4 to 6 doses have been given, sooner or later the urgent symptoms are found to abate. At first, indeed, after the first spoonful has been taken, the cough becomes less frequent and less troublesome, and the difficult respiration and general distress are also relieved. Thereafter, the croupy sound of the cough becomes changed, and crepitating mucous râles are audible. When this improvement has fairly commenced, the medicine may be administered less frequently, say every 20 or 30 minutes, and still more seldom as the malady recedes. In very severe cases, the remedy should be continued every two hours, even after all traces of the cough have gone, because otherwise a relapse may occur in the evening, and necessitate a renewal of large doses of the salt. It is only in very bad cases, when, after a period of 12 or more hours, no change in the croup-sounds has taken place, that we need despair of success; and the author observes, that very often a change for the better takes place quite suddenly and unexpectedly. He warns us against remissness in our treatment after signs of improvement have commenced, as the disease, if unheeded, may break out afresh. In cases where the copper fails to produce vomiting, we need expect no good from its administration, and we have then to choose between tracheotomy, cold affusion, and musk; and the two latter remedies, according to Hönerkopff, may induce irritability of the stomach, and thus prepare the way for the renewed use of the sulphate.—*Journal für Kinderkrankheiten*, March and April, 1855.

Dr. J. Samter, of Posen, has also written a paper in praise of the sulphate of copper in this disease. His remarks on its advantages and mode of administration so closely resemble those of Hönerkopff which we have

given, that it is unnecessary to quote them here at length. He uses a solution of from 4 to 8 grains, (and, in severe cases, 10 to 12 grains,) in ʒij of water; of this he gives ʒij repeatedly, till vomiting is induced, and thereafter ʒj every two hours.

In addition to the use of sulphate of copper, this author, at the beginning of the disease, applies four, eight or twelve leeches to the larynx, and especially if there be any pain felt there, and he afterwards applies stimulating epithenes. He also uses the inhalation of powdered alum and sugar, employs warm baths, and envelops the feet in hot sand, etc.—*Güinsburg Zeitschrift*, vj, 2, 1855.

Dr. Luzinsky considers that there are four therapeutical indications in the treatment of croup, which must be attended to by the physician. 1st. To change the peculiar blood crasis which exists. 2d. To prevent the localization of the inflammatory process in the larynx. 3d. To treat the spasm of the larynx. And 4th. To encounter and destroy the false membranes which have been formed..

For the fulfilment of the first indication, most men have recommended the use of mercurials; but Luzinsky depends more upon alkalis, and especially on the carbonate of potass, which exercises a solvent action on all the albuminous products of the organism. Its use retards the development of the constituents of the blood, and greatly impairs the vital coagulability and inherent plasticity of that fluid. This is the theory of the action of this salt, which Eggert recommended 'as a specific in croup, after an experience of it in about 250 cases. It may be given advantageously in doses of from ʒss to ʒij daily. Carbonate of soda may do in mild cases, but the other alkali is alone to be relied on in more severe ones.

The second indication may be answered by the application of a blister, the size of a crown piece, to the upper part of the manubrium of the sternum.

Spasm of the larynx is most surely treated by opium, applied externally, in conjunction with vesicants (15 grains to ʒss of opium, to ʒss of lard) and also given in small doses internally.

To arrest the formation of the pseudo-membranes, nitrate of silver, in a concentrated solution, may be applied to the fauces and entrance of the larynx. Emetics may thereafter be given, and they are only necessary in the exudative stage. Luzinsky gives decided preference to the use of sulphate of copper, which he administers by giving, every 15 minutes, a teaspoonful of a solution of 2 or 4 grains (or even more) of the salt in oz. iiss

of some fluid. He does not look upon tracheotomy, in croup, in a favorable light.

Out of 30 cases treated thus by Dr L., only 7 died.—*Edinburg Med. Journal*, from *Oester Zeitschrift*, i. 6, 8, 10, 1855; and *Schmidt's Jahrb.*, xi. p. 207, 1855.

ENTRANCE OF AIR INTO VEINS DURING SURGICAL OPERATIONS.—*From the Reports of the London Hospitals.*—An interesting instance of the passage of air into the veins during an operation for toticollis is reported in a late number of the "Medical Times and Gazette," as happening in the London hospital, under the care of Mr. Ward. The patient, just as the knife divided the sterno cleido muscle, fell back insensible, and at the same time a loud hissing or sharply blowing sound was heard. Mr. Ward at once placed his finger on the wound, and artificial respiration was commenced. In a few minutes the child recovered.

A second case, analagous to the above, occurred under the care of Mr. Hutchinson, of the Metropolitan Free Hospital. Whilst extirpating a cancerous gland in the axilla, a whizzing, bubbling, very peculiar noise was heard, and the pulse of the patient immediately sank. The assistant placed his finger on the wound, when the noise ceased, and the patient rallied. After waiting a few minutes, the arm was raised and the finger was removed, and again the peculiar whizzing returned. The finger was replaced, and after further delay, the operation was concluded, all the vessels being tied. The reporter concludes the history of these cases with the following remarks :

The entrance of air into veins is a matter of so much interest to the practical surgeon, that we may, perhaps, profitably, in connection with the cases just cited, bring before our readers the following notes concerning it :—

1. *Symptoms.*—A whizzing, gurgling sort of noise should always be regarded as sufficient to excite the utmost alarm, and on hearing it, the operator should not allow a moment to escape.

2. *Treatment.*—The finger should be instantly placed upon the wound. The patient should be laid in the recumbent posture, and, if syncope has occurred, artificial respiration should be commenced. If apparent death has ensued, endeavors at resuscitation should, for reasons about to be given, be long persevered in.

3. *The entrance even of considerable quantities of air into a vein is not nearly so fatal an accident as generally supposed.*—The writer once introduced a small injecting tube into the jugular vein of a horse, and blew as forcibly as he could for some minutes. The animal appeared uneasy, but nothing more. A large tin tube, with bore as great as the thickness of a little finger, was next procured, and half an hour or more having elapsed, and the horse seeming quite well, the wound was reopened, and a second attempt made. A very large quantity of air having been blown in, the horse at length fell. His death was slow, and seemingly very painful, occupying at least twenty minutes. After death the right side of the heart was found literally distended into a bladder of air. The result of this experiment quite accords with those obtained by many other observers. Dr. Blundell injected 5 drachms of air into the femoral vein of a small dog; no symptom of immediate danger ensued, and in three days the animal was as well as ever. So common, indeed, has it been for recovery to follow the symptoms of entrance of air into a vein, that M. Ph. Boyer actually goes the length of denying that any proved instance of its causing death in the human subject is on record. M. Vidal, also, has insinuated that the accident is one invented by surgeons to account for the sudden death of their patients. Whilst it cannot be needful to demonstrate the absurdity of these opinions, the circumstance of their having been held by such surgeons is instructive as pointing to the rarity of the occurrence.

4. *Air may be easily absorbed from the interior of the large vessels.*—This follows necessarily upon what has just been advanced. If death does not occur quickly the patient will probably recover. No endeavors should therefore be made to remove the air at the time, nor should any fear of its “decomposing the blood” be entertained. All the surgeon has to do, is by artificial respiration, galvanism, etc., to keep his patient alive for a certain time.

5. *Proportion of deaths in recorded cases.*—In an able review of Dr. Wattman’s book on this subject, published in the “Medical Review” for July, 1847, a tabular report of all recorded cases known to the writer is given. The list comprises 54 cases in which the accident occurred to the human subject, and of these 29 ended in death and 25 in recovery. While in several of these the evidence is very incomplete, in a majority there can remain no reasonable doubt as to the reality of the occurrence.

6. *Length of time elapsing before death.*—In most of the fatal cases given in the table referred to, death occurred, if not instantly, within a

few minutes. In one, however, it followed in fifteen minutes after the conclusion of the operation; in a second, "some hours" afterwards; in a third, suddenly, three hours afterwards (no autopsy); in a fourth, on the seventh day, from bronchitis; and, in a fifth, on the twenty-eighth day, the immediate cause being pneumonia. In the last no autopsy was made, and, as the patient was a young infant, it is very doubtful whether the inflammation of the lungs had any connection with the accident under consideration.—*Virginia Medical Journal.*

INJURY TO THE PERINEUM, PUNCTURE OF THE BLADDER ABOVE THE PUBES.—*Reported by Dr. George M. Fox, of Brush Hill, Ill.*—Aug. 6th, 1855, was called to Lyons to attend a boy by the name of Drummond, 13 years of age, who had received an injury of the perineum by sliding from a hay mow, and alighting on the edge of a barrel, one foot going inside the other out. I found him with the scrotum considerably swollen, and somewhat ecchymosed; he had received the injury the evening previous to my being called. He did not experience much pain when he kept quiet. Since receiving the injury he had passed a small quantity of urine with some pain. I ordered the injured part to be kept constantly wet with the following lotion: \mathcal{R} plumb. acet. \mathfrak{z} x., tinct. opi. \mathfrak{z} i, aqua. \mathfrak{z} iv., to be kept cool with the addition of bits of ice, and applied often. Aug. 7th, he was much the same as yesterday. Ordered a laxative, and local treatment continued; urine was passed with some pain. Aug. 8th, 9th, and 10th, remained much the same, the urine was passed with some difficulty, yet passed off so as to cause no very unpleasant symptoms; local treatment continued. Aug. 11th, found him suffering from retention of urine, the bladder was moderately distended, with considerable pain and tenderness. I undertook to pass a catheter, and now, for the first time, discovered that the urethra was ruptured in the perineum, and that severely; as near as I could judge all efforts to pass a catheter were unavailing; something must be done. I dispatched a messenger for Dr. Johnson, of Chicago. The bladder must be emptied in some manner, and I did not like to hazard an operation without counsel, at any rate. He did not arrive until next morning. By this time, urinary infiltration had taken place to considerable extent, through the perineum and scrotum. He tried to introduce a catheter, but with no better success than myself. We then decided to puncture the bladder above the pubes, and Dr. Johnson proceeded to perform the operation in the usual manner. Canula was

allowed to remain in the bladder until such time as we could succeed in introducing a catheter through the natural passage. Aug. 13th, patient doing well, had rested well through the night, the lower part of the scrotum beginning to show some appearance of sloughing; continued the same local applications with morph. sulph. as an anodyne to relieve pain and procure sleep. From this time up to the 23d, no unpleasant symptoms followed the operation; but the lower part of the scrotum, and a portion of the perineum, had sloughed entirely away, leaving the testicles bare, and revealing the rupture of the urethra, nearly two inches of which sloughed entirely away. He had had a slight attack of diarrhoea, which was rather troublesome, but yielded to the usual remedies. The parts seemed to manifest a disposition to heal rapidly. I now tried in vain to introduce a catheter through the natural passage, but all efforts were unavailing. Aug. 19th, I again called Dr. Johnson, in consultation. He succeeded better than I had done, but in a different manner. He passed first a small-sized catheter through the opening above the pubes into the bladder, and then passing it out through the urethra into the perineum, then by bringing a second catheter in contact with this, the first was withdrawn, while the second was introduced; the canula above the pubes having been first withdrawn. The aperture healed rapidly; the urine was discharged through this catheter for a day or two, when it became displaced by accident. The urine was now discharged through the aperture in the perineum. Things remained in this shape until Aug. 28th, all efforts to introduce a catheter being unavailing; when, on trying to introduce a gum elastic catheter, the catheter passed beneath the bladder, and between that and the rectum, I felt something yield to the pressure I was making, and supposed that the catheter had entered the bladder, but it was only for a moment, for a large quantity of dark colored and very offensive smelling pus flowed through the instrument. On turning him on his side, nearly a half pint was discharged. I removed the catheter, and from this time to Sept. 5th the abscess discharged profusely, the urine still passed through the perineum. About this time he had a severe attack of diarrhoea; this, together with the discharge from the perineum, and the abscess between the bladder and rectum (for such it undoubtedly was), debilitated him very much, he being reduced to a mere skeleton. At this time the opening in the perineum was healing rapidly, and something must be done to prevent the urethra from closing up entire, and the formation of a urinary fistulæ in the perineum. I finally succeeded in passing a gum

elastic catheter after much trouble, in the following manner: I first passed the catheter through the natural passage, and at the aperture in the perineum, then doubling it on itself passed it into the bladder. In the mean time I had given him as nutritious a diet as he would bear, and procured rest by opiates. From this time the discharge from the abscess became rapidly less. Sept. 12th, the wound in the perineum still doing well. I can now pass a silver catheter, but with some trouble. From this time until Oct. 1st he improved rapidly; the wound in the perineum had closed, and he passed urine through the natural passage as well as ever. He looks well, having regained his flesh and strength. Up to this time I had kept a catheter in the urethra most of the time, but have not used it since, and now at this time, Dec. 1st, he is as well as ever, and has had no symptoms of stricture or anything of the kind, and all that is left of the injury is a large cicatrix; more than half of the scrotum being entirely gone.—*Northwestern Medical and Surgical Journal.*

TWO CASES OF RARE CARDIAC DISEASE—*By W. H. Draper, M. D., House Physician, Bellevue Hospital. Case I.—Rupture of the Mitral Valve, with double Pneumonia, (Service of Dr. I. E. Taylor.)*—Mary W——, æt., 35, a native of Ireland, was admitted to the hospital, December 10th, 1854. The patient seemed to have been once a vigorous woman, and to have no hereditary tendencies to disease; though with the last few years, she had been the victim of poverty and intemperate habits. During the past six months, she has suffered occasionally from fever and ague; she never had rheumatism, and was never subject to palpitation, dyspnœa, or cough. Four days previous to admission, she was seized suddenly, in the night, with severe pain in the cardiac region, difficulty in breathing, and a dry cough; soon afterwards she began to expectorate tenacious, bloody sputa. These symptoms continued until her admission to the hospital. The pain had abated, but she still suffered from intense dyspnœa, and an harrassing cough, with the expectoration above described. The pulse in the right wrist was full, regular, and about 100; in the left it was scarcely perceptible. The cheeks were flushed, the lips a livid hue, and the countenance anxious. There was no œdema of any part of body. On physical examination, the chest was found to be symmetrical, expanding equally on forced inspiration, and normal in its vocal resonance. There was slight dullness on percussion under both clavicles; this dullness, it should be remarked, was questioned by several who examined the case.

Posteriorly, percussion was normal, no increased extent of cardiac dullness noted. On auscultation anteriorly, the respiration was harsh, but not bronchial; inspiration accompanied on both sides by a fine crepitus. The vocal resonance, though somewhat increased, could not be called bronchophonic. Posteriorly, the respiratory murmurs, and voice sounds were normal.

All over the anterior portion of chest, but most distinctly over the præcordial region, posteriorly in the interscapular regions, and along the course of the aorta as low down as its bifurcation, was heard a loud, harsh systolic murmur, having the tone and superficial quality of a friction sound. No material changes occurred in the physical signs after the patient's admission. The cardiac murmur remained unaltered in character and extent; the pulmonary signs exhibited no other change than an occasional increase or diminution of the crepitant râles. The expectoration was constant in character, a microscopic examination showing blood in abundance, and but very few exudation elements. In reference to the lungs, opinions were divided between pneumonia, congestion, and œdema. Of the cardiac disease, no positive diagnosis was ventured; aneurism, mitral disease, rupture of the valves, and pericarditis, were all suggested as probabilities, though none of them could be positively diagnosticated. A few days previous to death, it was thought that a thrill was occasionally detected on the right of the sternum, at the junction of the third intercostal cartilage. The symptoms gradually became more severe—the treatment addressed to the relief of the pulmonary congestion, producing little or no effect. The dyspnoea and cough steadily increased, though the physical signs indicated no extension of the disease. The patient sunk gradually, and died December 23d.

Autopsy, 22 hours after death. *Head*, not examined. *Thorax*. The superior lobes of both lungs were in the state of red hepatization passing into gray. All over the surface of the hepatized portions of both lungs, both anteriorly and posteriorly, there was a layer of crepitant tissue about the third of an inch in thickness. *Heart*. Weight 16 oz., tissue firm and healthy, right side distended with blood. The aorta presented numerous patches of atheroma. Aortic valves sufficient, but thickened along their free margins. The superior curtain of the mitral valve ruptured along the attached margin, leaving an aperture about the third of an inch in diameter; the ventricular aspect being fringed with abundant vegetations. *Abdominal Viscera* healthy.

Case II. — Fibrous Tumors in the Walls of the Right Ventricles. Sacculated Aneurism and Dilatation of Aorta. (Service of Dr. Elliot.) — H. B ———, æt., 40, a native of Ireland, by occupation a laborer; admitted to the hospital, January 26th, 1856. The patient was born of healthy parents, and had always been a healthy and robust man; accustomed to the use of liquor, but rarely indulging to excess. He never had syphilis, and had never been salivated. Five years since he suffered from rheumatism of the knee and ankle joints, which annoyed him for three weeks, but did not confine him to the house. A year ago this winter, he began to suffer, without any assignable cause, from shortness of breath. He observed at the same time, that on stooping, his face became livid, and his head dizzy, and he would have to grasp something to steady himself. Six months ago, he first noticed that his face was swollen, the œdema being most marked after lying down; his lower extremities soon became considerable œdematous. Gradually the superficial veins of the chest have become turgid and somewhat varicose. About a week ago, the condition of things became, rather suddenly, aggravated, and he began to have some difficulty in swallowing. On admission, he complained of nothing but the dysphagia, which he referred to something in his throat that choked him. When perfectly quiet, in a sitting posture, he breathed with comparative ease; but on lying down, the dyspnœa would occasionally be intense, amounting sometimes to orthopnœa. When asleep, the respiration was loud and stridulous, both inspiration and expiration seeming to be equally difficult. He never coughed, and never raised blood; he suffered from palpitation only after exercise. His appetite was good, and his bowels regular.

Physical signs—dictated by Dr. Metcalfe.

The face was much swollen, generally of a livid hue, but in some parts red, looking considerably like erysipelas. The neck was very short and much swollen, the swelling extending to the chest and forearms; lower extremities somewhat œdematous. The upper part of sternum generally prominent; the external jugulars considerably distended, though not pulsating. The skin of the thorax showed through it many intensely congested vessels, some of them capillary, others as large as a crowquill; this was not more marked on one side than on the other. The chest expanded equally on forced inspiration. Nothing abnormal on palpation, except increased extent and force of cardiac impulse. There was dullness on percussion over the whole of sternum, and two and a half inches to the right of

the median line above the nipple; the præcordial dullness was double its natural extent. Over the præcordial region, and over the whole anterior chest, especially at night, there was a loud, harsh systolic murmur; this was feebly transmitted to the carotids. The respiration and vocal resonance were natural on the left side of chest; on the right, there was bronchial respiration and broncophony, most marked at the base. The pulse was small, but a little larger in the left wrist than in the right; pulsations 96, and regular. The point of apex-beat was indeterminate, though the epigastric pulsation was evident. No marked pulsation felt behind clavicles, or by depression in the jugular fossæ. No dullness anywhere except at point noted. The respiration was slightly stridulous.

There was no change observed in the symptoms or physical signs presented by the patient, until the day of his death. About 11, A. M., February 4th, he had a severe fit of choking, which came on suddenly, and for a moment caused him to grow black in the face. Nothing more, unusual, happened until 2 A. M. the following morning, when he rose from his bed to get a drink, and expressed the wish that one of the patients would pour some water on his head. Immediately afterwards, taking up his chamber to urinate, it dropped from his hand, he fell back upon the bed, and struck his head convulsively two or three times against the wall. An intelligent patient immediately went to his assistance; and felt for his pulse; it was gone; he gasped several times, but before I reached the ward, was dead. Those who were with him, did not observe any sudden suffusion of the face previous to death; and when I saw him, within five minutes after he expired, the face was, if anything, paler than during life.

Autopsy — seven hours after death. Rigor mortis not developed; hypostatic congestion very marked on the back and lower extremities. From the free border of the ribs upwards, the body, neck, and face were very œdematous. *Head.* Scalp intensely congested, dark venous blood flowing freely on section. Lateral and longitudinal sinuses gorged with blood. Membrane not markedly congested. No subarachnoid effusion. On section, the substance of the brain exhibited numerous points of congestion; otherwise, nothing abnormal noted. *Thorax.* About six oz. of serum in each pleural cavity. Left lung slightly œdematous — free from adhesions. Right lung œdematous, and firmly bound to the costal pleura by old adhesions. *Heart.* Weight 26 oz. Pericardium everywhere adherent to the surface of the organ. As the heart lay in position to the right of the sternum, the aorta as it left the heart was dilated, for nearly two inches, to

twice its normal diameter. On its posterior aspect, about an inch above the aortic valves, there was a small sacculated aneurism as large as a walnut. The artery exhibited numerous patches of atheroma, at several points the internal and middle coats being destroyed. The heart itself presented a peculiar and remarkable appearance from the great hypertrophy of the the right ventricle. This was found, on examination, to depend partly on an hypertrophy of the muscular tissue, but mainly on the existence of three firm fibrous tumors imbedded in the walls of the ventricle—two being situated in the anterior, and one in the posterior wall. The superior half of the ventricle was narrowed by the encroachment of these fibrous growths, to the diameter of the pulmonary artery. The lining membrane of this portion of the ventricle was thickened, and presented numerous atheromatus patches. These tumors were ovid in shape, of uniform size, and measuring nearly an inch in their long diameter. On their pericardial aspect, there was no muscular tissue—their sides were surrounded by the wall of the ventricle, and a thin layer of muscle covered their endocardial surface. On section, they exhibited the usual characteristics of fibrous growths; and by microscopic examination, were found to be constituted entirely of fibroplastic elements. Left ventricle somewhat hypertrophied. Valves healthy. *Abdominal Viscera* healthy.

The specimens just described, was presented by Dr. Elliot, at a late meeting of the Pathological Society. It excited considerable interest, inasmuch as it seemed to be altogether unique, no similar case having occurred in the literary or practical observation of any of the members present. — *Medical Times.*

LUXATION OF THE FEMUR UPWARDS ON THE DORSUM OF THE ILLIUM REDUCED BY REID'S METHOD.—This case was communicated to the Surgical Society of Ireland by Mr. M. H. Stapleton. A boy, aged six years, was admitted into Jervis street Hospital on the 29th of August, 1855, at 1, P.M., having sustained an injury of the hip-joint on the previous evening. All that could be learned as to the manner in which the accident occurred was, that the boy, whilst climbing a large wooden gate, suddenly fell backwards to the ground, the gate (which was unattached by hinges or otherwise) at the same time giving way and falling over him. His mother states that she found him in this situation, and having extricated him from his dangerous position, she had him at once conveyed to a neighboring practitioner. At this time he complained of severe pain im-

mediately above the patella. No attention, however, was directed to the principal seat of injury, though the usual symptoms of this dislocation were well marked, the mother being merely desired to stupe the knee, to relieve the pain complained of in this situation.

On examination, the following day, when brought to the hospital, the following were the appearances presented : The injured limb was shortened by the entire length of the patella, the thigh was slightly flexed, and the knee inclined inwards, the ball of the great toe resting on the tarsus of the opposite side. The trochanter major was approximated to the anterior superior spinous process of the illium, and was also less prominent than that of the sound limb. The natural roundness of the hip had disappeared. Any attempt to rotate the foot outwards was attended with the most acute pain. There was a slight mark of abrasion on the skin below the knee. When the boy was left undisturbed, the only pain complained of was that referred to a point above the knee.

From the presence of these symptoms, Mr. William H. Hozier, the resident pupil, was enabled to pronounce the case to be one of dislocation upwards on the dorsum of the illium.

The surgeons of the hospital were summoned without delay, and the child having been placed under the influence of chloroform, Mr. Stapleton having obtained Mr. Ellis's permission (whose case it was) to try Mr. Reid's plan before the usual method of reducing such dislocations, proceeded as follows : The leg was bent upon the thigh, and the thigh flexed upon the pelvis, until the knee nearly touched the abdomen, when the knee was abducted and rotated outwards, when reduction was immediately accomplished and a snap distinctly heard by those near the spot. My attention was first drawn to this procedure by reading a case recorded in the "*Medical Times and Gazette*," June 18, 1855, in which it proved successful under Mr. Cock, of Guy's Hospital, but in which no mention is made of the original inventors or proposers of this procedure. In the number for the 18th of July, the "*Medical Press*" enlightens us on that subject in an abstract taken from some American journal, and there we find Dr W. Reid, of Rochester, New York, published a paper on Feb. 3d, 1852, in the "*Transactions of the Medical Society of the State of New York*," which society had held its annual meeting at Albany. But as regards priority of invention, we have Dr. Fischer, of Cologne, who published in "*Casper's Wochenschrift*" in the number for November, 1849. His method of reducing dislocations of the hip consists in flexing the femur on

the trunk, and making rotation of the limb conjointly with abduction or adduction, as the head of the bone may be situated one or the other side of the acetabulum; and we also find in one of the New York journals for 1855, a Dr. Mayer spoken of as having made use of this procedure of Dr. Fischer without being aware of Dr. F.'s published statement.

It may be advanced by some that this method can only be employed when the patient is under the influence of chloroform; but this is not the case, as is proved by a case given in the "American Journal" for October, 1855, in which reduction was accomplished by this method without the use of chloroform. Wattman, Kleuge, Rust and Colombat have proposed methods of replacement, in which, by diminution of the muscular contraction, a less outlay of power is required than in those in more general use.

To those curious on the subject for the particulars of the procedures of Wattman, Kleuge, Rust and Colombat, will find them in Chelius's work on Surgery.

It was well known that when patients were taken by surprise, dislocations were often reduced with the greatest ease. Some years ago a girl was brought into Jervis street Hospital, having fallen into the hold of a vessel and dislocated her hip joint. At the time of the accident, as well as at the time of her admission, she was in a state of complete intoxication. She was to be placed under the care of the late Mr. Kirby, and he with others being anxious to examine the limb, took her out of bed, and supported her in the erect position. Hearing that Mr. Kirby was coming up stairs, and supposing he would not like his case to be meddled with, they were anxious to get her into bed, and to their great surprise while raising her up for that purpose the bone slipped back into its place, as he (Dr. S.) supposed at the time it was owing to muscular relaxation from intoxication; but on reflecting on the case when made aware of Reid's method, he came to the conclusion that the reduction was due to the fact of the thigh being flexed on the chest during the movement into the bed, and that the removal of the hand from under the knee rotated it outwards.

The president said it was a good many years since he brought under the notice of that society a case of dislocation of the hip joint, reduced by Colombat's method, and he confessed that, in principle, he could see no difference between that method and the one since proposed by Reid. There was indeed a slight difference in manipulation, but as regarded principle, the two methods were exactly the same. Colombat's method had been but seldom practiced as far as he knew; but speaking from his own experience

of the facility with which dislocations of the femur could be reduced by Colombat's method, and referring also to a case which he saw in the practice of Dr. Hargrave, he could hardly conceive a more simple or compendious method could be desired by any person. The only difference he could see between the two methods was this, viz., in the American method, the patient was placed on the back, while in the French method the position was altered.

Dr. Power stated that in Mr. Stapleton's case, all the muscles were perfectly flaccid, and he was astonished at the entire absence of anything like resistance on the part of the patient. In all his experience, he never saw a dislocation into such an anomalous position, as regarded the limb, reduced so readily and in so short a space of time. In fact, while they were looking at the case, and hardly expecting any immediate result, the limb was suddenly restored to its natural place; nor did it even require the evidence of his eyesight to convince him of the fact, for his ears told him plainly the dislocation had been reduced.—*Dublin Medical Press*.

BLACK CATARACT.—Mr. Haynes Walton communicated to the Royal Medical and Chirurgical Society (Nov. 27, 1855), the following curious case: A man, aged 75 years, had lost the sight of both eyes for several years, and whose symptoms, objective and subjective, were: The cornea and sclerotica were healthy; the irides bright and in their natural planes. The pupils were of ordinary size, and acted but slightly, even when submitted to a bright light. The anterior chambers were large. In the left eye there was the ordinary colored cataract of advanced life, not, however, very opaque. With this eye he could see the outline of his hand, or any large body. The first symptoms developed themselves in 1849, when the late Mr. Dalrymple was consulted, and gave it as his opinion that incipient cataract existed. In October last Mr. Walton was consulted, when the remarkable blackness of the right pupil attracted his attention. By the aid of a strong solution of atrophine to both eyes, and the use of the ophthalmoscope, he saw in the right eye a cataract of a very deep brown color, uniform over its entire surface, being without striæ or markings of any kind. By the aid of the sun's rays, concentrated by a powerful lens, it was more discernible. Mr. Walton considers this mode of examination superior to the ophthalmoscope. The opinions of Mr. Lawrence, Dr. Mackenzie and Mr. Tyrrell were quoted by the author in support of the rarity of this peculiar form of cataract.

Mr. Taylor, having had an opportunity afforded him of examining the case, confirmed the accuracy of Mr. Walton's description. When undilated, the pupil was of an intense black, like that of a child; not even when fully dilated was there an opacity visible, until a strong light was thrown on it by means of a lens. Then there was no difficulty in seeing the opacity, which was of a very dark brown color, and to him (Mr. Taylor) appeared to be situated in the nucleus of the lens, the superficial layers being little if at all affected.

Mr. Dixon had seen one case, and only one, of absolutely black cataract. Some years ago, he put on record that black cataract never existed, and soon after, as if to spite him, one of his colleagues extracted one. Several cases had been recorded, all presenting similar appearances. He might refer to those found by Stallweg, and taken from the dead subject, in which multitudes of black granules were found interspersed between the fibres of the lens and in the substance of the fibres. Another, as examined and exhibited before the Société Biogé, in Paris, by Blot, had the same characters as those before referred to. The case of his colleague was diagnosed as hard cataract, with white striæ in the circumference. The patient did well, and the sight is good.

Mr. Pollock mentioned a case, confirmatory of what had been already said. It was in an old general officer, and had been seen by him and by the late Mr. Dalrymple; but the ophthalmoscope was not then known, nor the use of a strong light; but all the symptoms of cataract were present. The patient could see better in the dark than in a bright light. The case was one that did not admit of operation by extraction, attacks of chorea being frequent; but depression was performed, and he got good vision. Mr. Dalrymple said it was the only case of black cataract he had ever seen.—*American Journal of Medical Sciences.*

DRESSING OF STUMPS UNDER WATER.—M. Langenbeck, of Berlin, has, for some time past, been in the habit of placing stumps in zinc boxes filled with warm water; and it is stated that some of the unpleasant sequelæ of extensive wounds are, by this kind of dressing under water, completely avoided. M. Valette, surgeon to the Charité Hospital of Lyons, considers that this method owes its success to the fact that the wound is protected from the action of atmospheric air, the analogy being drawn from the phenomena attending subcutaneous solutions of continuity. M. Valette leaves the stump a fortnight or twenty days under cold water—an infusion of aromatic plants in which some alum is dissolved. Pus

is, in this manner, coagulated and thrown down. He thinks that the present method is calculated to prevent purulent absorption; symptomatic fever, is much slighter than by the ordinary method of dressing, and the pain is considerably less. M. Langenbeck is on the point of using caoutchouc bags instead of zinc boxes; the bags are connected with two tubes, one bringing the water from a pail placed on a shaft, the other acting as a waste-pipe. A continuous current may be established at will, and keeps the part perfectly free from any accumulated secretions. This latter method is certainly worth trying.—*Lancet*.

ABSENCE OF THE SEPTUM BETWEEN THE VENTRICLES WITHOUT CYANOSIS. — Dr. Wilson exhibited to the Medico-Chirurgical Society of Edinburgh, (Dec. 5, 1855,) the heart of a child, 14 months of age, which had died of pneumonia. It was considerably enlarged, and there was partial absence of the septum between the ventricles. The child had been weakly, and gave indications of imperfect nutrition; but there was no cyanosis, and no bruit had been observed to attend the action of the heart.

Dr. W. T. Gairdner remarked, that the preparation illustrated a law, which had been observed by Dr. Stillé, of America, that cyanosis only occurred in such cases when there was contraction of the pulmonary artery, as compared with the aorta, which did not exist in this case.

Dr. John Struthers mentioned a case which had come under his notice, which was an exception to the law alluded to by Dr. Gairdner. — *Edinburgh Med. Jour.*

TWO CHILDREN BORN WITH AN INTERVAL OF NINE MONTHS AND TEN DAYS — Dr. Geo. W. Lewis, of Loydeville, Clark County, Ky., writes to us that, on the 15th of April, 1853, he attended a woman in labor, and delivered her of a small, weakly child, which died in the course of a few hours. Again, on the 25th of January, 1854, he attended the same woman in labor, and delivered her of a stout, healthy child, apparently born at full time, and who did well. The period between her two accouchments, was exactly nine months and ten days. — *Am. Jour. of the Med. Sciences*.

NEW TREATMENT FOR ITCH. — MM. Dussard and Pillon assert, that itch may be often cured immediately, by painting the body over with chloruret of sulphur dissolved in sulphuret of carbon. The application kills the acari and their eggs. Sometimes it is necessary to repeat the application, as some of the acari, or some of their eggs, may not have been killed by the first. — *Gaz. Hebdom.*

LIST OF MORTALITY FOR FOUR WEEKS, ENDING APRIL 30, 1856.

	1st Week.	2d Week.	3d Week.	4th Week.	Total.
Total number of deaths.....	93	82	78	80	333
Males.....	46	48	42	46	182
Females.....	31	29	32	28	120
Sex not stated.....	16	5	4	6	31
Whites.....	64	58	56	60	238
Blacks.....	13	15	13	12	53
Mulattos.....	14	7	9	8	38
Color not stated.....	2	2	0	0	4
Native Americans.....	9	18	19	22	68
Northern States.....	0	2	3	1	6
Western States.....	0	2	1	1	4
Southern States.....	9	14	15	20	58
Foreigners.....	26	22	20	24	92
English.....	1	0	1	1	3
Irish.....	15	12	12	11	50
French.....	2	4	2	3	11
Germans.....	2	3	3	6	14
Place of birth not stated.....	58	42	39	34	173
Age not stated.....	14	13	5	8	40
Under one month old.....	14	9	12	6	41
From one to five years old.....	14	20	15	12	61
From five to ten years old.....	3	2	6	7	18
From ten to twenty years old.....	3	2	4	8	17
From twenty to thirty years old.....	15	10	11	15	51
From thirty to forty years old.....	11	8	6	7	32
From forty to fifty years old.....	8	9	5	4	26
From fifty to sixty years old.....	0	4	6	7	17
From sixty to seventy years old.....	7	2	3	2	14
From seventy to eighty years old.....	1	2	2	3	8
From eighty to ninety years old.....	2	1	2	1	6
Over ninety years old.....	1	0	1	0	2
Other Diseases.....	80	77	70	69	296
Typhoid Fever.....	1	1	3	4	9
Cholera.....	0	0	1	0	1
Intemperance.....	0	0	0	0	0
Accidental.....	0	0	0	2	2
Still-born.....	12	4	4	5	25
Disease not stated.....	0	0	0	0	0

CHARITY HOSPITAL REPORT — For the month of April, 1856.

Admitted: Males, 463; Females, 117. Total, - - - 580

Discharged: Females, 119; Males, 465. Total, - - - 584

Died; Males, 35; Females, 13. Total, - - - 48

REPORT OF BIRTHS — Males, 5; Females, 6; Still-born, 2.

The record of presentations shows that there were thirteen births, thus divided: Twelve heads presentation, one of which was assisted by the use of instruments: the other was a presentation of foot and hand.

NEW ORLEANS

MEDICAL NEWS AND HOSPITAL GAZETTE.

VOL. III.

JUNE 1, 1856.

NO. IV.

ON THE YELLOW FEVER OF WOODVILLE,

And its Vicinity, in the State of Mississippi.

By ALFRED C. HOLT, M. D., in a Letter to ERASMUS D. FENNER, M. D.

[The letter of Dr. A. C. Holt, on the Yellow Fever of Woodville, Mississippi, and the region around, shows the author to be a man of accurate observation and reflection. He stands deservedly high as a practitioner and does an extensive business. He here gives us a valuable collection of facts relative to the *origin and extension* of yellow fever, and declares his conviction that "*under favorable circumstances,*" this disease may be transported from one place to another, regenerate itself, like scarlatina and measles, and be communicated from person to person. For myself, I am free to confess that the facts presented by Dr. Holt, together with many others of the same kind that have come to my knowledge within the last three years, in this region, appear to me strongly to support this position. In maintaining the opinion that yellow fever is transportable and communicable *under favorable circumstances*, Dr. Holt says: "It does not follow that it may not be of *domestic origin* whenever causes exist favorable to its production." This is a point of equal, if not greater importance than the infectiousness of the disease; for we may possibly discover the means of *preventing* the production of yellow fever, but if the disease be transportable and communicable, the only hope of confining it within bounds must rest on *the complete cessation of all intercommunication during the season of its prevalence.*

Fortunately for mankind, this is not a *common*, but an *extraordinary* feature of the disease, which but rarely occurs. Why it should present

itself only in some seasons and localities, and *not always*, forms an interesting problem, the solution of which I shall not attempt at present, although I do not think it insuperable. It will be seen that another one of my correspondents, Dr. Wood, presents some strong proofs of the *local origin and non-contagiousness* of yellow fever.

Dr. Holt points out what he considers well marked distinguishing features between yellow fever and *dengue*. He looks upon them as "distinct diseases," yet he says there is "a striking resemblance between them," and even admits that "they probably originate from similar causes, but there is wanting some ingredient to make them *identical*." In support of his position, he refers to the analogy afforded by chemical *Isomerism*, where the same elements combined in the same proportions produce substances *altogether different*. This is the very analogy reverted to by me about nine years ago in support of the *opposite* conclusion. I do not contend that bilious fever, dengue and yellow fever are *identically* the same, but that they are varieties of disease springing from the same elements differently combined and modified by attending circumstances. They all prevail at the same time and place, and their *diagnosis* has puzzled the most accurate^s observers. One thing is certain—that whenever dengue prevails epidemically, the few fever cases that terminate *fatally* always present the commonly admitted signs and appearances of yellow fever, such as black vomit, yellowness, etc. In this assertion I have been fully supported by Dr. C. H. Stone, of Natchez, and Dr. G. A. Ketchum, of Mobile.

E. D. F.]

WOODVILLE, March 6th, 1856.

DR. E. D. FENNER—*Dear Sir*: At your request, I give you a brief account of yellow fever, as it prevailed in this region during the last two or three years, and particularly as to "the facts tending to throw light upon the question of its origin, whether foreign or domestic."

The first case of which we have knowledge in 1853, occurred at the Woodville Factory, which is situated about a mile south of Woodville, in a beach grove and in a locality considered healthy.

This case was a man named Lee, who had been one of the factory operatives. He left the factory late in July, and visited New Orleans; returning directly thence, he reached the factory on Wednesday, the 9th August, and died with black vomit the following Sunday night.

Though he had a chill soon after his arrival at the factory, Wednesday

evening, yet he left his bed the next morning and walked into Woodville, where he remained several hours.

On the 25th August, the next case occurred at the factory; on the 28th, 29th and 30th, several others were attacked, and during the first week of September, the disease became general among the factory hands. I could trace no chain from case to case—nearly all of them had been in deceased's room during his illness, and at the time of his death.

As a rule, the attacks did not set in with violence—those in which this was the case, generally yielded readily to treatment, while many of the most formidable cases I encountered commenced with seeming mildness, and were attended throughout with little suffering. The deaths ordinarily occurred on the fifth and seventh days; in fatal cases, delirium, hemorrhages, jaundice and black vomit were common.

On the 26th August, Alfred, a boy belonging to Dr. Henderson, was taken; on the 31st Dr. H. was attacked, and during the next ten days his whole household, numbering nine persons, passed through attacks. On the — of August, Major Feltus was taken ill. His attack at the time, was not considered yellow fever, but subsequent events satisfied his physician, Dr. Angell, that it was so. As soon as he was able to be removed, he was taken to the country with his family, where one of his children had an attack soon after. In the cases of Maj. F. and Dr. H.'s boy Alfred, there had been no communication with the factory. Dr. H. had been in attendance on some of the earliest cases at that place.

The residences of both these gentlemen are on the southern boundary of Woodville, and therefore, nearest the factory.

On the 7th September, I visited two children at Mr. Noble's, about two hundred and fifty yards north of Dr. H.'s. These proved to be cases of yellow fever, and I am satisfied had had no communication with any other cases. From this time until the 21st, occasional cases occurred having no traceable connection with each other, at which date cases were numerous, and in various parts of the village. When the first death after Lee's occurred at the factory, many of the citizens of Woodville becoming alarmed, left town, leaving something over two hundred unacclimated subjects, not more than six or eight of whom escaped attacks. As many instances in which the fever occurred in families in the surrounding country contain points of interest, I will detail a few, and in order to explain fully the origin of the disease in the family of Mrs. McCausland, I give you some extracts from a letter of Mr. J. Scott Smith, of West Feliciana, written

while the events were all fresh in his memory. The letter reads as follows :

"Early in September, '53, my nephew, William McDermott, a youth about eighteen years old, arrived at my mother's house from Arkansas, having landed on his way down at Vicksburg, where he spent one night, the yellow fever prevailing at that place at the time.

"He came thence to Bayou Sara on a boat on which there had been cases, and some deaths from yellow fever—remained one night in Bayou Sara, the yellow fever prevailing there also, and the next day reached our house ten miles in the country, with fever on him. He died five days after, throwing up a large quantity of black vomit before death ensued.

"In a few days Miss W., an inmate of the family, was taken sick, and about the third day of her illness, Mrs. McCausland visited my mother, and was in Miss W.'s room two or three times during the day."

Mr. S.'s letter, in continuation, describes the cases of several other members of his mother's family, and the death of his brother, Mr. P. C. Smith, with black vomit—all having been exposed to the case of young McDermott, and having had no other exposure. The cases occurred in rapid succession, and were all pronounced by the attending physicians to be yellow fever. Mrs. McCausland, who resided nine miles from Woodville, visited, (as is stated by Mr. S.,) his mother's during the illness of Miss W., "and was in her room two or three times during the day."

This visit was on the 20th September; on the 26th Mrs. McC. sickened and subsequently died. On the 1st October, owing to the prevalence of the epidemic in Woodville at the time, I did not see her, though her usual medical attendant—one of the gentlemen who attended her—pronounced her case to be yellow fever, and sent me for examination a vial of fluid ejected from her stomach previous to death, which was unquestionably black vomit.

Twenty days after the death of Mrs. McC., I was called to attend her daughter, Miss Eliza, who died on the tenth day after a well marked attack of yellow fever. During the progress of her case, three servants who had aided in nursing her mother, were taken—on the day of her death, her brother Marcus was attacked—the day following, her sister, Mrs. Chinn, and a few days after Mrs. Stanton, (who had assisted in nursing Mrs. McC. and Miss E.,) had a well marked attack.

During the same fall, yellow fever made its appearance on the plantation of Mr. McCaleb, in West Feliciana Parish. As this place adjoined one

owned by myself, I was, of course, particularly interested, and thus became fully informed of the facts. Dr. Wm. Stockbridge, who boarded in the family of Mr. McCaleb, was induced to go into Bayou Sara during the prevalence of the epidemic, in order to render his aid to the physicians of that place, several of whom were prostrated at the time. Soon after his return to Mr. McC.'s he sickened, and in a few days was numbered with the dead, thus falling a victim to the generous impulses of a heart which had been ever prompt to respond to the calls of the sufferers.

In quick succession, nearly all the members of Mr. McC.'s family white and black, were attacked, himself and two of his children soon following Dr. S. to the grave. In my quarter, which was not over half a mile from Mr. McC.'s residence, no cases occurred, nor were there any elsewhere in the neighborhood.

Dr. J. W. Davis, who resided nine miles from Woodville, visited a family near Fort Adams, in which there had been several deaths from yellow fever, and during the illness of one of its members. Two or three weeks after, he died with black vomit. It cannot be ascertained that he was exposed to yellow fever except during this visit.

Dr. B. Baldwin visited Dr. Davis several times in the latter days of his illness, and twenty-two days after his death, sickened and died in five days with black vomit. Dr. Baldwin had been in attendance on Mrs. McCausland six weeks previous to his attack—this and the case of Dr. Davis were his only exposures.

Yellow fever prevailed in '53 in many other families in the adjacent country, but I have confined myself to those instances in which little or no doubt existed as to the first exposure.

In 1854 we had no yellow fever in Woodville, or the surrounding country. I treated ten or twelve cases of dengue during the fall.

I am aware that many gentlemen whose observation and experience entitle their opinions to respect, entertain the view that yellow fever and dengue are so closely allied as to be one and the same; and while it must be admitted that the resemblance is very striking, my own observation leads me to the conclusion, that they are distinct diseases—originating probably from similar causes, yet wanting in some ingredient to render them identical; and when we call to mind the Isomeric theory in chemistry, and the fact that under this law the same elements in the same proportions even, produce entirely different results, it is not difficult to believe that a similar law may prevail in the causes originating diseases.

The assertion that dengue is a mild form of yellow fever, it is clear to me, cannot be true—for, during an epidemic in Woodville in 1850, in which nearly every soul suffered an attack, and from which not a death occurred, there were a larger proportion of apparently very severe cases, than would be presented in the same number of yellow fever cases. I can in my own person, bear witness that there is nothing mild in an attack of dengue, either in the actual suffering and distress, or the condition in which the system is left by an attack. If asked to state the difference between the two in symptoms, I would say that in dengue the pains are more severe, longer continued and more erratic; the rigors continue longer, often lasting for two or three days when the covering is moved; while in yellow fever they rarely continue over an hour or two; the occurrence of an eruption in the majority of cases of dengue resembling measles, and often that of urticaria; the painfully disagreeable visions and illusions which haunt the mind in dengue, often even in waking moments, and invariably in slumber; the injurious and sometimes fatal results of what are called “imprudences” in yellow fever—the harmlessness of the same acts in dengue; and in cases of severity, the greater tardiness in dengue in an entire return to healthful feeling. The *debility* is as great in the one as the other—probably in yellow fever oftentimes greater—but when the convalescent who has “got well through” an attack of yellow fever is once upon his feet, as a rule, his sensations are all joyous; he feels as if he had a new lease of life, and this not merely from a sense of danger escaped—while one just out of a severe attack of dengue, if asked how he feels, the most usual and very expressive reply is, “I feel *mean* ;” he rarely enjoys those delightful emotions which an entire return to healthful feeling can alone impart, but for days, and weeks, and sometimes months, he feels “mean.” In dengue there is also a marked perversion of the sense of taste—nothing is natural, and the patient, in early convalescence, will turn with loathing from the idea of eating the most delicate dishes. While it is undeniably true that rare cases of a second attack of yellow fever do occur, I am persuaded their apparent frequency arises from the fact that dengue is often called yellow fever, and vice versa. The mistake is an excusable one, in view of the many points of resemblance between the two diseases. During the epidemic yellow fever through which we have just passed, I treated seven cases which I pronounced dengue, though nurses and patients were disposed to call them all yellow fever.

In September, 1855, yellow fever again made its appearance in Woodville. The circumstances attending its commencement and progress are as follows :

John Blacker, from Cincinnati, reached Woodville on the 15th August, having landed on his way down at Vicksburg, where he remained a few days. As yellow fever then prevailed at that place, and Woodville was under quarantine regulations, he was sent on the 27th, to Hastings House, a temporary station one mile and a half southwest of Woodville, at which place he died with yellow fever on the 2d September. It is believed the disease had developed itself before he left town, as he had a chill on the evening of the 26th. On the 28th, Mrs. Blacker and daughter, Mrs. Craige and children, and Mrs. Brown, all residents of Woodville, and friends and relatives of Blacker, visited him at Hastings. On the 5th September, Mrs. Craige was taken sick, her attack being very slight. She was not visited by any physician, and we have only the opinion of her neighbors, who were familiar with yellow fever, and who pronounced hers a case of this disease. On the morning of the 6th, I was called to see Miss Woodbridge. On the night of the 6th, a negress of Bengoner's had a slight chill followed by a fever of five or six days duration. This was her own statement to me when called to prescribe for her on the 12th. She ejected black vomit the next morning and died on the 14th.

On the morning of the 7th I prescribed for Wm. Beach, in the same house with Miss Woodbridge; on the morning of the 8th for Mrs. Blacker and her daughter, both of whom were taken during the night of the 7th; on the 9th for two children of Mrs. Craige; on the 11th for Anderson, a negro boy at Mr. Butterworth's; on the 13th for Mrs. Brown; on the 18th for Henry Blacker, and on the 21st the disease was declared epidemic.

All the above mentioned cases, (Mrs. Brown, H. Blacker, Bengoner's negress, and the boy Anderson excepted,) were slight attacks, and in consequence of the short duration of the febrile action, I could not pronounce them at the time cases of yellow fever; but all doubts in relation to the majority of them, were removed by subsequent symptoms during and after convalescence.

I have not been able to discover that Miss W., Wm. Beach, Bengoner's negress, or Anderson, had any communication with John Blacker, unless the fact that they resided upon the street along which Blacker passed on his way to Hasting's, can be deemed such.

Blacker and Craige reside in the northeastern portion of the village,

Butterworth in the southwestern, about half a mile apart. Mr. Beach's and Bengoner's houses are on an air line between the two—are one-third the distance from Blacker's to Butterworth's; Hastings is half a mile beyond Butterworth's on the same road. Mrs. H. D. Smith's plantation is one mile beyond Hastings, and two miles and a half south west of Woodville. About the 1st September, Jacob, a negro on Mrs. Smith's plantation, was taken sick. His attack being slight he had no physician, though it excited no suspicion as to the nature of it. On the 16th or 17th I was sent for to prescribe for Hannah, the wife of Jacob. On the following day I found twelve or fifteen additional cases in the Hospital, which, after careful examination I pronounced yellow fever. The first cases after Jacob, were members of his family. In the next twenty-four hours I had sixty cases under treatment, and the disease ran rapidly through the family, white and black. Jacob was, without doubt, the first case on the place. He had been passing frequently back and forth near Hastings, during the illness of John Blacker, and a few days before his illness opened a bale of India bagging just from New Orleans. This was his only known exposure to yellow fever, if such it may be called.

On the 26th August I was called up before day by Mr. Wall, returning from Cooper's Well, on board the steamer Princess, and found him to be in what proved to be the chill of a yellow fever attack. We landed in a few hours at Tunica, and he was conveyed to his father-in-law's, Mr. F. A. Evans, fourteen miles from the river, where he had a severe attack of nine days duration. Upon reaching Mr. E.'s I sent for acclimated nurses to aid me, notwithstanding which precaution, in the succeeding ten days or two weeks after Mr. W.'s recovery, fourteen negroes, constituting all the household servants, stable boys and hostlers, were attacked, and some three weeks after the last case in the yard, the disease developed itself in the quarter, which is half a mile from the residence. The plantation of Mr. Evans is in a healthy locality, isolated by fields and forests, and in a region where yellow fever never before prevailed.

A few weeks after Mr. Wall's recovery, he visited the plantation occupied jointly by himself and his nephew, Mr. Williams, near Fort Adams, accompanied by Mrs. W. and her servant, who had also recently recovered from yellow fever.

Six days after their arrival, the woman in whose room the servant of Mrs. W. had been lodged, was taken ill, and on the third day of her attack Mr. W. communicated his suspicions to Mr. Williams, that it was a case

of yellow fever. Mr. Williams immediately left the place and proceeded to Dr. Sheppard's, in Pinckneyville, was taken ill the following night, and had a well marked attack of yellow fever. Before he was up from his bed, two servants of Dr. S. were attacked. Dr. S. and his wife had both had the yellow fever in '53. In the meantime Mr. Wall had separated the negroes on the plantation, selecting some five or six who were known to have been in the room with the first case, and keeping them apart from the others, and in this manner the progress of the disease was arrested.

It seems to me a fair inference that if the fever had originated on the place, this separation would have been of no avail—but Mr. W. was able to designate which would be liable, and the result proved the correctness of his action.

Your question: "Do you believe yellow fever transportable and communicable? and if so, give the grounds of your belief," is sufficiently answered in the foregoing sketch. Except upon the hypothesis that yellow fever can re-create itself, under favorable circumstances, I see no satisfactory explanation for the cases I have quoted, and going over the whole country during the last three years, such instances might be added almost *ad infinitum*.

It is no argument against this belief to state the fact, that the disease does not invariably spread from an imported case. We all know and admit this to be true—and we also know it to be true, that a well marked case of scarlatina can occur in a family, and not another case follow, or that every member of a household may pass through this disease, and none others in the immediate neighborhood suffer. And yet, no one will deny scarlatina to be highly contagious and infectious. The first case in Woodville, in 1854, was Mr. Thurber, a gentleman just from Galveston, where yellow fever was prevailing, who fell sick soon after his arrival in Woodville; and the next cases were in the family in which he was sick, and in the families in the immediate vicinity.

The first case in our section in '53, was Lee, direct from New Orleans to the factory, and his companions and nurses were the next to suffer.

The first case in '55, was John Blacker, direct to Woodville from Vicksburg, where yellow fever was prevailing, and among the first after his case were those who were known to have visited him after his inception of the disease.

If these are but accidental coincidences, they certainly occurred with a strange degree of regularity; not more, however, than that which has

marked the progress of yellow fever along the course of commerce and travel.

In holding the opinion that this disease is transportable and communicable, it does not follow that it may not be of *domestic origin*, whenever causes exist favorable to its production. Acknowledging my entire ignorance as to them, I will not trouble you with idle speculations.

Respectfully,

A. C. HOLT.

ON THE DIFFERENTIAL DIAGNOSIS OF SOME DISEASES OF THE TESTIS.

By ANTHONY PENISTON, M. D., Adjunct Professor of Anatomy in the New Orleans School of Medicine.

The testis, says Wilson, are two small oblong and rounded glands, somewhat compressed upon the sides and behind, and suspended in the cavity of the scrotum by the spermatic cord. Lying against its outer and posterior part is a flattened body, called the epididymis.

From its delicate and complicated structure, its peculiar position and its functions, the testis may be considered an independent organ, of which the diseases are numerous and varied. At present, however, I propose to give a condensed description of three glandular diseases, which especially deserve the attention of the surgeon; for, while they resemble each other by their external appearances, so as to occasion at times considerable difficulty of diagnosis, yet their nature and treatment are widely different.

These three affections are, the Tuberculous, the Venereal, and the Cancerous Testis.

According to Velpeau, the testicle ranks next in order after the lungs and lymphatic glands, as being most subject to tuberculisation. It would even appear from the observation of this eminent Surgeon, that tubercles have been found in the testis when no other part of the body presented any traces of tubercular degeneration, the patient, in fact, having died from some intercurrent affection. He is inclined to think that this disease, though resembling pulmonary phthisis in many of its pathological characters, may yet be distinguished from it in many points. Thus, tuberculisation of the testis is compatible with the general good health of the patient, the disease being entirely local; and whereas in the latter the softening of the tuberculous

masses takes place from the centre to the circumference, in phthisis the softening takes place from the circumference towards the centre. According to him, this tuberculous affection of the testis is the result of some local irritating cause, such as orchitis, disease of the urethra or neck of the bladder, etc., producing a slow but long continued inflammation, followed by degeneration of the glandular tissue. The progress of this affection is so gradual that the origin of the disease is seldom known to the patients themselves, though its subsequent development is certain and inevitable. In the first stage, the testis is somewhat enlarged and presents in many points various nodes and elevations widely different from the smooth, elastic texture of the normal gland. These nodes, which are hard and cretaceous, vary in size and quantity; for, whereas in some cases one or two may only exist, in others the whole of the gland may be invaded and destroyed. After the first stage, of slow evolution, the crude tubercle undergoes some molecular change, by which it softens, and then the ulcerative stage begins, the result of which is increased pain, and redness of the skin, followed by ulceration and the evacuation of the contents of the abscess. This softening process is generally partial and gradual, one tubercle softening and then another, at indefinite intervals of time. Whether opened by the knife of the surgeon or the slower process of nature, the next stage is the formation of a small fistulous opening, with the usual appearances of scrofulous degeneration, viz: a livid ulcer, with thin and uneven edges, which, by gradual process of absorption, exposes the centre of the abscess, thus presenting a fungoid growth, continuous by a pedicle with the substance of the gland. Such are the three phases of development in tuberculous orchitis, and according to the rapidity of their evolution, the disease may run its course in a few months, or linger for many years.

The prognosis of this affection is generally unfavorable, and though some examples have been cited in which absorption of the tubercular deposits have actually taken place, yet in the vast majority of cases the partial or total loss of the organ is an almost inevitable consequence. The continual drain upon the system by the fistulous openings are generally productive of the most deleterious influence upon the general health; yet in some cases this condition has not exercised any unpleasant effects on the rest of the organism.

It is needless to say that remedial agents are of little or no avail against this affection. The different topical applications are indicated according to the progress of the disease; at the same time, a good and invigorating

diet, together with pure air and exercise, are, perhaps, the most useful adjuvants.

The other affection of the testis, which we must next consider, is generally ranked among the tertiary forms of syphilis, being an inflammation of the tunica albuginea testis, a dense fibrous tissue.

Mr. Velpeau says this affection is characterized by dull pains in one or both of the testis, with exacerbations towards night, and increased sensibility on pressure. This pain, though not of a lancinating character like cancer, is yet very irksome to the patients who suffer from its long continuation. They are, also, subject to fits of despondency, accompanied with loss of appetite and strength, which brings on great prostration of the whole system.

At first, the organ appears to have increased in size, but often it seems partially atrophied, at the same time that its density is increased, most probably by the effusion of lymph among the seminiferous tubes.

The coverings of the testis preserve their natural color, but the gland itself loses that smoothness and elasticity which is characteristic—it seems hardened into a solid concrete mass. The disease is slow in its progress, requiring months for its evolution, and it is generally confined to the gland itself, seldom invading the epididymis or the cord.

As a consequence of the inflammation spreading among the seminiferous tubes, thereby producing their partial or total obliteration, there is a consequent loss of viril power, and the nature of the seminal fluid seems entirely changed.

The syphilitic disease of the testis is quite amenable to appropriate medical treatment; the different preparations of mercury, and especially the iodide of potash, exercising a most beneficial effect, and generally producing a radical cure when taken in time.

Another affection which may be mistaken for the above, is the sarcocele, or cancerous affection of the testicle, as the word is now commonly understood. This disease occurs most frequently between the ages of twenty-five and fifty years, that is to say, at that time of life when the gland is in its greatest functional activity, and therefore subject to various sources of irritation, which may act as the exciting cause in the development and progress of the disease.

It has been observed that both testis are very rarely affected with sarcocele. The disease generally commences by the body of the testicle, and afterwards extends to the epididymis and vas deferens. The testi
s

itself is somewhat enlarged and harder than natural, being subject at times to slight pains occurring at different intervals. Very soon all the symptoms increase in frequency and intensity. Then the patient suffers from acute darting pains, propagated along the spermatic cord to the groin and loins. The tumor itself becomes painful to the touch and rapidly increases in size, while it softens in some points, so as to present distinct fluctuation. The skin of the scrotum is next involved in the disease; it becomes adherent to the tumor, and assumes a bluish aspect. The cord is next invaded, presenting a hard and knotty appearance, as far as the inguinal canal; then the lymphatic glands become involved, extending the disease into the abdominal cavity.

At this stage the complexion of the patient is generally sallow, and his general health much impaired by suffering and loss of appetite. We cannot better describe the third stage than by quoting the words of Sir Astley Cooper. "At a particular point of the scrotum a purple blush appears, under which a fluctuation seems so distinct that the surgeon is often induced to make a puncture, but merely blood is discharged. Although the wound thus made heals, yet soon afterwards ulceration ensues, and a fungus projects, bleeds and discharges a profuse quantity of thin serous fluid, which has a peculiar faint odor. In two or three weeks the ulcer spreads to the breadth of the palm, sloughs frequently, is extremely offensive, occasionally very painful, but not tender to the touch; and if the testicle be compressed, a brain-like substance issues from the fungus. At last, the patient sinks from hemorrhage, serous discharge and continued irritation." The duration and progress of this disease is exceedingly uncertain, being sometimes rapidly fatal, and at other times persisting for several years without much apparent detriment to the health of the patient. Roux and Velpeau agree in stating that both testis are seldom, if ever, attacked by cancer, in the same way the mammæ of the female are rarely affected by cancer either at the same time or consecutively. This fact has an important application in diagnosis, and when both glands are invaded you may safely say the affection is not of a cancerous nature. For this disease, amputation is of course the only hope, and the earlier the operation is performed the better is its chance of ultimate success. It is therefore highly important to make an accurate diagnosis in cases of this kind, for the operation would scarcely be justifiable in either of the other cases, at least under ordinary circumstances.

Having thus briefly described these diseases, so different in their nature,

yet presenting in a great measure the same outward appearance, I shall now refer to an interesting case, which may serve as an application of the preceding doctrines.

On the 16th March, 1855, a man aged about 40 years, entered the surgical wards of the "Hopital des Cliniques," under the charge of Professor Nelaton.

The patient, who lived in the country at some distance from Paris, came to seek medical advice relative to a tumor of the scrotum, which he had borne for several years. He says that this affection came on slowly and gradually, he has never experienced any pain, nor any impediment to his usual occupation, which is that of a husbandman. About two years before entering the hospital he discovered, by chance, that his scrotum was enlarged, but he felt no pain whatsoever, and one testicle was much larger than the other; since that time very little change has taken place, but lately the other testicle has also increased in size. He says his general health is excellent, that his viril powers are not sensibly impaired, and were it not from motives of prudence, he would not actually require medical assistance.

To the touch both testis are evidently increased in size, and much harder than natural; the right testicle is larger than the left, and presents in one point an appearance of fluctuation. Below and behind the epididymis appears also enlarged and hardened, covering a great part of the body of the gland. The patient says he has never had syphilis, nor any other disease of the generative organs.

Professor Nelaton, after carefully examining this patient, pronounced the disease to be of a syphilitic nature, though there are apparently no other traces of this affection. Admitting, said the professor, that we give entire credence to his story, and admit that either he never had any syphilitic affection, or is not aware of having had any, we can still account for this manifestation of disease by attributing it to hereditary descent, this being, in fact, one of the tertiary forms of syphilis. It is a well known fact, that affections of the fibrous tissues and of the osseous system, are among the last and most tardy manifestations of the syphilitic virus. We must, then, suppose, that the disease had been latent during nearly forty years, and, though this period is somewhat longer than usual, yet authentic cases are not wanting in which the tertiary symptoms have been thus protracted. Mr. Nelaton said that in his own experience he had known several instances of hereditary transmission, in which the syphilitic taint had only been revealed after years of uninterrupted good health.

This affection could not be of a tuberculous nature, for the patient is strong and hardy, presenting no appearance whatsoever of the tubercular diathesis. Moreover, the tuberculus affection of the testis, though essentially slow in its progress, differs from the present case in this, that the tuberculous masses would not have remained thus long without softening down. Then we would already have had inflammation and ulceration of the skin, followed by the evacuation of a thick grumous matter, and afterwards the production of a fistulous opening, which is slow and difficult to heal. The progress of tuberculisation would scarcely remain latent during two years.

Could this affection be taken for a cancerous testis? Certainly not. In the first place, the encephaloid or medullary cancer is soft, and quite different to the touch from this tumor. As to the schirrhous variety, which is hard and fibrous, we know that its progress is rapid, so that by this time it would have ulcerated the parts and destroyed the general health of the patient. In either case we would have the cancerous diathesis fully developed—the sallow complexion, shooting pains in the lumbar region, etc. We know, moreover, that sarcocele rarely, if ever, attacks both testis at the same time, while, on the contrary, in the syphilitic affection the rule is, that both testis are either affected at once or consecutively. In doubtful cases the treatment itself becomes an important means of diagnosis. The proto iodide of mercury and the iodide of potash will soon control the syphilitic disease, whereas they exercise no influence on the cancerous or tuberculous affection; for these, in many cases, there is no other alternative but that last resort of the surgeon, the knife.

CASES OF CROUP, WITH REMARKS,

By EDWARD JENNER COXE, M.D., Visiting Physician, Charity Hospital, New Orleans.

Messrs. Editors Hospital Gazette :—In the April number of your journal I reported a case of croup, complicated by neglect, eventually cured by remedies considered, by some of the profession, too severe for the tender years of those most liable to that disease. Since the date of that report the child has continued in perfect health, the natural intonation and power of voice having been regained. Notwithstanding the large doses of hive syrup, tartar emetic and calomel, given in rapid succession, there was not

produced the slightest gastric or enteric uneasiness; on the contrary, it became necessary to give additional doses of calomel and castor oil, as well to act on the bowels as to overcome the morbid impression, made upon the larynx, alluded to, which continued for several days after the disappearance of all other symptoms of croup. For several days before this laryngeal symptom was removed, the child, in other respects perfectly well, was playing about the room all day, slept soundly all night, ate freely of plain food, the catarrhal cough finally disappearing, and her natural voice perfectly restored.

Before making any remarks upon several points of practical importance in regard to the successful treatment of the first stage of croup, and the consequent prevention of that stage in which, by common consent, the formation of a false membrane may be apprehended, the following cases may be appropriately introduced: On Sunday, April 13th, 1856, the weather being warm at midday, T. M., aged 22 months, had his flannel taken off and, at his usual hour, went to bed without, at that time, having given any evidence of cold or cough. About nine o'clock he was heard to cough several times without the least hoarseness. His mother gave him a dose of sweet oil, not apprehending further difficulty, after which he slept soundly till about midnight. At that time he became restless, coughed frequently, with hoarseness, while the voice and inspiration had the dry, harsh sound characteristic of croup.

In a short time I was sent for and, living near, was soon present. I found him as follows: cough frequent and very hoarse, the pulse and skin nearly natural, the voice and inspiration croupal, and the respiration hurried—all proving the attack to be one of croup, well defined and unmixed, which, if not arrested, would necessarily increase in severity, as had been the case from the commencement of the attack. As customary with me when called at night to a case of croup, I had taken a bottle of hive syrup, one of tartar emetic, and one of calomel, for the purpose of saving time, which in croup is often of primary importance.

I at once commenced with teaspoonful doses of hive syrup every few minutes, until vomiting was produced, which did not occur until I had added, three times, several grains of tartar emetic, with about fifteen of calomel. When vomiting did result there were brought up large quantities of tough phlegm of which some had to be removed by the fingers. By this time a warm bath was ready into which the child was placed, the throat, breast and indeed every part of the body, being all the time well

rubbed with the hands, so as to produce a marked redness. While in the bath, as before, the hive syrup was given frequently, in addition to which frequent teaspoonful doses of a solution of five grains of tartar emetic in two tablespoonfuls of water, and two more doses of calomel were given, vomiting was kept up to the manifest relief of the symptoms, and at the proper time the child was removed from the bath, and wrapped in a large blanket. The child was eventually laid on the bed, the disease arrested, if not subdued, as evinced by the difference of cough, and the decreased harsh sound of the voice and inspiration. The impression produced by the hive syrup was continued by smaller doses at more distant periods, and when at last the child appeared disposed to dose, I favored it by teaspoonful doses of paregoric, always combined with hive syrup. Remaining some time, the child asleep, the breathing as free as could be expected, the cough frequent and much less hoarse, I left, directing the medicine to be given in case of necessity. During the time the child was under treatment, the bowels were once freely moved. It may not be amiss to state that during the first hour of sickness the throat and breast were rubbed with No. 6 and tr. myrrha comp., no other irritant being at hand.

T. A. M., 14th. The child slept nearly all the time, and sleeps now; the breathing is quite regular, had coughed several times with slight croupal sound. At 8 o'clock, when I returned, the child was awake and appeared lively. Occasionally he would cough slightly hoarse, the voice being nearly natural, as also the inspiration, pulse and skin natural. Knowing the tendency of this disease to recur the following night, in order to prevent such I ordered occasional small doses of hive syrup, and a teaspoonful of the following mixture every one or two hours, depending upon the frequency of the cough:

R Syrup Ipecac,
T. Opii Camph.,
Aq. fl. Aurant, aa ζ j \mathfrak{m} .

A tablespoonful of castor oil was also ordered, and the throat and breast to be rubbed with a mild liniment during the day several times. Farinaeous food and rich gum and flaxseed lemonade the sole diet and drink.

15th. Child slept well all night and had no return of croup symptoms, was up and about the room yesterday. Allowed a slight addition to the diet. I considered him well, and in a few days every vestige of the catarrhal cough had disappeared.

The following case equally proves the efficacy of the course of treatment advocated: October 19th, 1854, I was called about midnight to see J. D.,

a boy aged six years, attacked with croup. On inquiry I found that for twenty-four hours he had been laboring under an ordinary cold, with frequent cough, without hoarseness, for which several doses of medicine had been given, that he had gone to bed at his usual hour and had slept quietly until about eleven o'clock, when he awoke with frequent hoarse coughing, great restlessness, the voice and inspiration harsh and dry. Several doses of hive syrup were given, but not in sufficient quantity to produce any effect; all of the symptoms were steadily becoming worse, notwithstanding vomiting had been at last produced by a tablespoonful of lamp-oil, which, from its nauseousness, was no sooner down than it was rejected. On arrival I found him coughing frequently with the characteristic sound, and the voice and inspiratory noise clearly indicated the nature of the disease, which was of a severe type. I had taken with me a bottle of hive syrup, and immediately commenced with teaspoonful doses every few minutes, and as no effect was produced, the symptoms becoming more severe, I gave it in tablespoonful doses, adding in one about twenty grains of calomel. Finally, free and forcible vomiting occurred, bringing with it a large quantity of tenacious, stringy mucus, which had to be removed with the fingers. By this time warm water, which I had ordered, being ready, the child was at once placed in a warm mustard bath, and, while in, was forcibly rubbed with the hand over the throat and breast, so as to produce considerable redness. While in the bath, as previously, several tablespoonful doses of hive syrup were given, vomiting profusely kept up, and a large quantity of tough, stringy phlegm thrown off. After having remained in the bath about ten minutes, hot water being added several times to maintain the temperature, he was taken out and wrapped in a blanket, in his mother's lap. There was now an evident amelioration of the symptoms, the cough less frequent and, as well as the voice and inspiration, less harsh. Small doses of hive syrup were given occasionally to keep up nausea and vomiting, and in a short time he was put to bed, still wrapped in the blanket. He was perspiring freely, the pulse much softer, the breathing more natural. Considering him out of danger, in a short time I gave a teaspoonful of paregoric, with half a teaspoonful of hive syrup, to ensure a sound sleep, and directed the same to be repeated once, or more frequently in case the cough or hoarseness of voice should reappear, which I did not much apprehend, as before I left he was asleep, and while that would be encouraged by the paregoric, the hive syrup would prevent any accession of the croupy symptoms. I left him about four o'clock and saw him again at half-past

eight the following day. He had slept quietly the greater part of the time, having coughed but a few times, when the paregoric and hive syrup was repeated. I found him asleep, breathing freely and naturally, the skin and pulse natural. He awoke while I was there, when I found his voice and breathing nearly natural, and when he coughed, although slightly hoarse, it was more free and loose. The bowels had not been opened, and I ordered a full dose of castor oil, and the hive syrup to be given in small doses every hour or two during the day. The diet to consist of farinaceous food, tea and toast, with flaxseed and gum arabic lemonade for drink.

5, P. M. Bowels moved twice, has coughed a good deal, at times slightly hoarse, generally soft, his voice nearly natural. Apprehensive of an exacerbation at night, more from the frequency of the occurrence than the existing symptoms, I ordered a dose of paregoric and hive syrup, regularly every hour, and, in case of necessity, during the night to push the hive syrup freely. The next morning I found him doing well; he had slept nearly all night, had not coughed much, but had taken two doses of the medicine. The diet to be the same as that of yesterday, and occasional doses of hive syrup during the day, with paregoric several times added towards evening. As no further difficulty occurred in this case, it is unnecessary to detail daily occurrences. The catarrhal cough, which continued several days, disappeared, the child resumed his ordinary habits, and I ceased attendance.

The following case, having been treated in the same manner, it is unnecessary to dwell upon the details—a succinct account will answer every useful purpose :

Sunday, May 11th, 1856, at 11, P. M., I was called to see a little girl, aged two years and a half, said to be laboring under croup. On Sunday morning she awoke with a hoarse cough, but the parents, unacquainted with the frequent result of such a cough, supposing it an ordinary cold, took no precautions, and the cough recurred many times during the day; the child, in the afternoon, was seen by friends who knew what the cough portended, remarked that during the night there would be some trouble, and advised the going home and then taking some hive syrup. A small dose, about seven o'clock, in the course of an hour produced nausea and vomiting, when the child went to sleep. About ten o'clock the child became very restless, coughed considerably, with the dry, hoarse sound, and the hoarseness of voice and inspiration equally well marked.

I found her laboring under the symptoms of a well marked case of croup, of more than moderate severity, as regards the characteristic hoarseness of cough, voice and inspiration. The skin was dry and warm, the pulse moderately full and frequent, the eyes injected, the cheeks much flushed, with great restlessness. A teaspoonful of hive syrup, with six grains of calomel, followed in a short time by an equal dose of hive syrup, four grains of calomel and half a grain of tartar emetic, produced full vomiting with straining, and the ejection of a considerable quantity of tough, viscid phlegm. A few more doses of hive syrup, a warm bath for five minutes, the body and limbs rubbed, and, when taken out, wrapped in a large blanket, eventuated in a decided amelioration of the previously severe symptoms. The face became pallid, the skin soft and moist, and the child appeared languid and disposed to sleep. This I was disposed to encourage, and while waiting, anxiously for this moment, I had mixed about twenty grains of nitrate of potash in ten teaspoonfuls of water, with one teaspoonful of hive syrup, and five drops of the tinct. opii acet., not having paregoric, which I prefer, in my small night box. Of this a teaspoonful was given and produced or assisted the object desired, sleep, during which the recuperative power of nature performs a most friendly part. This dose was directed to be repeated in case of awaking, or much cough occurring.

Half-past six, A. M., 12th. I found the child asleep. She woke up several times, coughed occasionally rather hoarse, took one dose of the medicine and a little cold water, then went to sleep and rested quietly.

Eight o'clock. Now awake; her general appearance was perfectly satisfactory, the breathing natural, cough seldom and but slightly hoarse. I allowed her thin corn starch, gum and flaxseed lemonade, and directed the throat and breast to be rubbed frequently with sweet oil, and one teaspoonful every hour of the following:

R. Tart, Ant. et Potass, gr. j.
 Nit. Potass, ʒss.
 Spts. Nit. Dul., ʒiij.
 Tr. Aconite, gtt v.
 Aq. flor. Aurant, oz. iss M.

With the above give one teaspoonful of castor oil every hour, until the bowels are moved. Suffice it to say that no further difficulty was experienced; in a few days the cough entirely disappeared, and the child was restored to perfect health.

I am aware that tartar emetic, as well in adults as in young children, will occasionally produce unpleasant or unlooked for effects upon the

stomach and bowels, the dread of which has created an unnecessary prejudice against the use of this invaluable remedy in croup. In the case just related, there was reason to apprehend excess of action on the bowels, for almost all the sickness this child had suffered from for nearly twelve months had been derangement of the bowels, requiring the utmost care as to her diet. I confess I did feel anxious lest the remedies should act too violently on those organs, but the croup had to be met and the remedies were used as freely as required. Instead of any unpleasant over action or irritation of the bowels, it was necessary to administer several doses of castor oil for the express object of causing an action on the bowels.

In no one instance, in children, have I ever seen the least unpleasant or injurious effect produced by tartar emetic in croup, whether used as it generally is, in the form of hive syrup, or as a solution in water.

A few years since the son of Col. B., three years of age, was attacked in the most violent and sudden manner with croup, with slight premonition, all of the symptoms well marked and unusually severe. The case is given from memory, upon which it made a lasting impression. In this case copious bleeding, unusually large and frequently repeated doses of hive syrup, calomel, ipecac, a warm bath, and turpentine to the throat, were vigorously continued for several hours before the child could be regarded as out of immediate danger. Even after having subdued the most dangerous symptoms, for several days, besides leeching, a pretty active treatment was required to remove the secondary affection of the lungs. Perfect recovery followed in this case, which I consider one of the most severe and obstinate that ever fell under my notice.

I have a distinct recollection of two cases in children, a boy and a girl, each three years of age, in which no favorable impression was made by a frequent repetition of the largest doses of my favorite remedies, until venesection, carried to the point of incipient convulsions from the loss of blood, suddenly produced a decided beneficial effect, which, by a continuance of active treatment, resulted in a perfect cure in the course of a few days.

There are some physicians who totally disapprove of general bleeding in croup, when attacking children of a few years of age. I have bled children of all ages without, in a single instance, having seen other than the most immediate and curative effects. It is true that I do not invariably resort to blood letting in this disease, yet am I willing to acknowledge that in the cases reported, where perfect recovery followed without its aid, I feel certain I would have more immediately arrested the disease and con-

sequently lessened the sufferings of the little patients and my own anxiety.

Never have I regretted having bled early in this disease; very often have I that I did not, for, although the cases were cured, I could not but allow that the road to health would have been made more easy.

Remarks.—There is one fact to be observed in respect to the action of medicines in mild or severe cases of croup, and, as has appeared to me, precisely in proportion to the severity of the symptoms, which is a marked insusceptibility in the system as to their anticipated and usual effects. At times it will be found almost impossible to produce nausea or vomiting without bleeding to a large amount, the warm bath and even a tobacco poultice to the throat and chest; but with these, used almost simultaneously, the desired effect will result and the patient, in a short time, be materially relieved and finally cured. As will have been remarked, I attach great value to the effects resulting from tartar emetic in croup. I am of the opinion that, independent of its nauseant and emetic properties, unquestionably of great power, that it exerts the same curative influence in this disease which it is known to possess in others of a violently inflammatory character, pneumonia for example, and I am fully convinced that, although free and full vomiting may be caused by many other substances, the same benefit will not accrue as when the hive syrup or tartar emetic in solution are used.

With the exception of general bleeding, which, in many cases of croup, is indispensable, and which I frequently resort to without, in a single instance, having had reason to regret its use, the above is the general plan of treatment which I have adopted and adhered to in the pretty large number of cases that I have successfully treated since 1823.

Were it possible, at this distant period, to give a detailed report of all the cases of croup, of every degree of violence, which I have successfully treated, no statistics that I have read would present such a per centage of cures. It is no vain desire to boast of my success that induces me thus to speak of the treatment that I believe fully competent to cure almost every case of this disease. To the remedies and the manner of administering them, all is due, and as the same means are in the possession of others, I do not see why, if similarly employed, an equal amount of success should not crown the efforts of others. In croup, as in other diseases, we must naturally expect to meet with cases of every degree of violence, in very different constitutions, compelling the exercise of judgment in the employment of our remedies. Some are of so mild a character as to occasion little

uneasiness, and admit of a speedy cure by the timely exhibition of appropriate medicine. Others, commencing with apparent mildness, may, in a few hours progress with great rapidity to a fatal termination, without the intervention of prompt and efficient remedies. And others, with scarcely any premonition, are found to commence in the most sudden manner, advance most rapidly, and, unless met by the most vigorous treatment, will most frequently terminate fatally.

The origin and course of croup, equally with autopsic investigations, conclusively prove this disease to consist in an inflammation, of a highly acute character, of the mucous membrane of the trachea and larynx, extending, as a general rule, in severe cases to that of the bronchi, and if neglected, or timorously treated in the incipient stage, it will almost invariably assume that degree of severity as to eventuate in the formation of a false membrane, the necessary cause of a greatly increased difficulty, and uncertain of success in the treatment, finally, compelling the necessity of resorting to that last and doubtful means of relief, tracheotomy or bronchotomy. Without presuming to assert that this operation is never justifiable or required, for I can conceive of cases in which it might be as the ultimum remedium, I cannot but express the opinion, that if an attack of croup is met and vigorously treated the first few hours, the necessity of such an operation would very rarely, if ever, present itself.

It is well known that Dr. Trousseau, of Paris, the prominent advocate of this operation, reports many successful cases, and strenuously urges the operation to be performed at an earlier stage of the disease than usual, or than many equally eminent consider necessary or justifiable. When this operation is performed almost in extremis, statistics prove it to be rarely successful. When performed at an earlier period, the general opinion is, that it is uncalled for, the disease being yet amenable to well-directed medical treatment. In my opinion, a vigorous antiphlogistic treatment, by which, I mean, general bleeding, aided by local, when deemed advisable, hive syrup very freely used, or tartar emetic in solution in its stead, a warm bath, calomel in some cases, a tobacco poultice to the throat and breast, turpentine or other active irritant to the throat, if early and freely used, and the first decided impression maintained by nauseating doses of hive syrup, to which paregoric may be added, after the severity of the disease has passed by; if these are properly timed and actively used the condition supposed to demand the operation will be prevented from appearing.

In no disease is time of more value than in croup. Attack it at the earliest moment, and its future progress will be prevented. The treatment of a case of croup, fairly set in, should not be abandoned until all danger has been removed.

PLACENTA PRÆVIA, ETC.

By D. WARREN BRICKELL, M. D.

May 7th, 1856, 8, P. M.—I was called, together with my friend Dr. E. D. Fenner, to attend the servant woman of Mr. H. in labor. In 1849 I had assisted Dr. F. in delivering the same woman. On that occasion we encountered an arm presentation, and discovered that the pelvis of the patient was considerably under the normal standard of dimensions. I performed version by the feet, and delivered her of a small-sized foetus at full term. It was still-born.

I lost sight of the woman until the date above mentioned. We arrived a few minutes after eight o'clock, and found the patient lying quietly on her back, with very decided labor pains, occurring at regular intervals of about four minutes. I attempted to explore the os uteri with a single finger, but it was beyond my reach in the position in which she lay. The vagina was well lubricated with mucus, and on withdrawing the finger I found it slightly stained with blood. The examination was, of course, unsatisfactory, though the pains were not at all urgent, and we determined to wait on her a little while. Indeed it was found necessary to evacuate the lower bowels with enemata.

A conversation with those in attendance on her now revealed the fact that she had been delivered of four full term children since our attendance on her in 1849; that she had lost them all in the birth; that the third one had presented the shoulder, and was turned and delivered by Dr. P. of this city; and that the last was a footling case, she having given birth to the child without assistance, though only after very severe efforts. It also appears that all the children were under the average size. But the most important fact now revealed was, that a few days previous to our being called to her she had suffered from very free hemorrhage from the vagina. On questioning her closely we now ascertained that she had been

suffering from more or less hemorrhage during two weeks past, and that on the 4th instant the hemorrhage was so profuse as to cause her to "feel faint." It is well to remark here, that the patient is a very likely and strong negress, about 28 years old, and although very good-natured, not very intellectual.

The latter disclosure about the hemorrhage aroused our suspicions, and we determined to make a satisfactory exploration of the parts. The os uteri being still out of reach of one or two fingers, I passed my whole hand into the vagina, when, sure enough, the placenta was found over the os, the same being dilated to the extent of two inches in diameter, patulous, and dilatable to any extent. On making gentle traction on the outside of the os about one-fourth of the placenta dropped into the vagina. I now passed my fingers within the os, and they immediately came in contact with an arm, just beyond which was the head. The liquor amnii had been evacuated just after relieving the bowels by enemata.

No hemorrhage ensued on the prolapse of the placenta, and the pains not being at all urgent, I withdrew my hand for a few moments. Repeated auscultation had failed to detect the foetal circulation, and we determined to remove the placenta forthwith, and lastly the child. I returned my hand within the mouth of the uterus, and after getting what I supposed to be about two-thirds of the placenta in my grasp, I made moderate traction, hoping to remove the whole mass. It was preternaturally soft however, and broke away from that portion on which the head and arm were now pressing firmly. On withdrawing it from the vagina it proved to be entirely bloodless, and was quite easily broken down by pressure. Another examination now proved the head to be coming down with the arm directly over it, and notwithstanding the same was repeatedly pushed back, it persisted in taking the advanced position. The head was found, however, to be small—the bones overlapping each other very freely—and we determined to trust to the uterine efforts to expel the foetus in this way. Just at this time all uterine action ceased, and as there was not the slightest hemorrhage, either evident or concealed, we concluded to let the patient rest a little while. It was now twelve o'clock, and Dr. F. returned home, leaving me to complete the delivery. At a quarter to one, the uterus suddenly resumed its action, and in a few minutes the head and arm were in the cavity of the pelvis. At one the foetus was wholly expelled, and the remainder of the placenta followed in a few minutes—it presenting the same bloodless appearance as the piece first removed. The cord was en-

larged to twice the usual size, and broke readily under moderate pressure or traction. The foetus would have weighed about six pounds; the brain was very much softened, rendering the head easily moulded into any shape; and the cuticle readily slipped from the surface in various parts. No hemorrhage followed the delivery, and I left the patient in a very comfortable condition.

REMARKS.—This case affords striking illustration of the ill fate which sometimes unremittingly pursues us. This poor woman suffered greatly in her first labor, an arm having presented as before mentioned; in her three subsequent labors she suffered from mal-presentations, and had to be delivered manually; in her fifth accouchement the breach of the child presented, though she succeeded in expelling it without assistance; and lastly, she has passed through the peril just detailed. All her children were still-born, though it is most probable that all save the last had arrived at full term. With regard to the last, I am satisfied, on reflection, that it was prematurely expelled. 1st, because it was only on the of July, 1855, that she was delivered of a child; and 2d, because of the general appearance of want of development of the foetus. True, it was about the average length, but the head was very small and the bones of the cranium imperfectly developed, and the whole muscular system seemed blighted.

The patient has evidently a contracted pelvis, but from my acquaintance with it (derived by free contact with my hand), and from the fact of her having in July last given birth to a child of medium size, without assistance (though still-born), I am decidedly inclined to the belief that she could (if the head presented) be delivered of a living eight months' child. The fact of her never having been blessed with a head presentation might seem to weigh against success, but this is all accidental, so far as we are aware, and we can assign no good and sufficient reason why the very next child may not present the head. I could detect no real deformity of the pelvis save such as may exist in a general reduction of dimensions.

The most interesting feature connected with the case is in relation to the position and condition of the placenta. The evidence elicited from the woman and her attendants tended at once to arouse suspicion, and physical exploration not only detected the existence of placenta prævia, but the first effort to pass the finger within the os uteri (it being well dilated) caused fully one-fourth of the mass to drop into the vagina. Extended exploration proved the mass to be completely detached from the uterine wall as far as it could be reached, and very moderate traction brought away at

least two-thirds of it, which portion was found to be perfectly bloodless—presenting the appearance of having been *squeezed*. I was satisfied in my own mind that there was complete detachment of the whole placenta, the superior third only being retained in the uterus by the head and arm descending in advance of it and pressing firmly on the adjacent parts. This opinion was verified by this latter portion of the placenta presenting the same bloodless appearance when it was delivered, and by the whole mass being preternaturally soft; indeed, in a state of partial decay. The only reason for supposing that any part of it had been very recently normally attached to the uterus exists in the fact that hemorrhage to the extent of two or three ounces occurred soon after the rupture of the membranes. It would seem that this blood must have flowed from some portion of the uterine wall recently in normal contact with the placenta. But we have certainly shown that a large portion of the placenta had been detached during the two weeks previous to the accession of labor. Bleeding had been going on during this time to a greater or less extent, but it was three days before it commenced that she experienced a hemorrhage which made her “feel faint;” consequently we are to infer that the greatest degree of detachment occurred at that time; indeed, the very partial state of decomposition of the mass tends to corroborate this idea.

The result is, then, that we have an extensively detached (perhaps entirely detached) placenta, lying in a uterus which contains a complete ovum of at least eight months; hemorrhage to an alarming extent takes place when the process of detachment is going on (if I may be allowed the expression), but it stops spontaneously, and three days afterwards the patient goes into labor; and all this notwithstanding the presence of an eight months’ ovum, the uterus being of course distended to a capacity sufficient to hold the same. Does not all this fly in the face of all past teachings on the subject? And does it not afford the strongest proof of the doctrine now urged by Simpson, that to check dangerous hemorrhage in placenta prævia we must completely detach the mass? The rule has been that the degree of hemorrhage, and consequently the danger to the woman, progresses in direct ratio to the degree of detachment of the placenta, but Prof. Simpson has dashed boldly against this time-honored bulwark, and proclaims that where the life of the woman is endangered complete detachment is her salvation. Until now, I confess to skepticism in relation to his doctrine, but one fact is worth a thousand theories, and there must be *some* truth in his view of the subject. There is one thing certain; we

are not yet satisfactorily acquainted with the circulatory relation of the placenta with the uterine wall, and until we are, facts, not theories, must be the data for our operations.

This poor woman presented the strangest complication I have ever met with. There was contracted pelvis, placenta prævia, and the arm in advance of the head. How few women, under ordinary circumstances, would pass through such an ordeal unscathed!

The prominent reason for allowing the head to engage in the pelvis with the arm in advance of it, instead of performing version by the feet, was that it was found to be very small and the bones were overlapping each other to a great extent. I was satisfied that ordinarily good expulsive pains would drive it through the pelvis, even contracted as it was. It is well to have rules to govern our actions in all matters of importance, but I must assert a privilege inherent in us all to make these rules and our actions subservient to circumstances and the dictates of common sense. A portion of the placenta was detached and removed from the vagina, leaving the remainder in the uterus. There may be no precedent on record, but the mass lay in the vagina, forming a decided obstacle in the way of manipulation; no hemorrhage existed, and no *force* was required for its removal, consequently it was taken away.

I noticed recently that Dr. Matthews Duncan has been reporting some experiments to ascertain the cause of the mal-presentation of the dead foetus. It has been heretofore assumed by some that the great frequency of head presentations in living children was owing to a vital action, though the more prevalent opinion has been that it was owing to the laws of gravitation. Dr. D.'s experiments tend to show that the change which occurs in the brain (it being soonest affected) gives rise to the change of presentation, this change at once diminishing the weight of the head. However, the case just related by no means sustains the doctrine of Dr. D., since the cephalic extremity of the child presented, notwithstanding the consistency of the brain was very much altered.

SPECIAL SELECTIONS.

MELTING OF THE CORNEA IN PUTRID OR TYPHOID FEVER.

By Professor A. TROUSSEAU,

Translated from the Archives Generales de Medicine, April, 1856.

Softening of the cornea is one of the severest accidents attendant upon those diseases characterized by cerebral symptoms.

Having been for some time puzzled by this symptom, I think I have discovered at last both the explanation of the fact and the mode of prevention. It is quite possible that others may claim the honor of the discovery; if so, I shall relinquish all pretensions to priority, and remain content with having rendered public a fact certainly little known.

We often see in the course of putrid fevers the patients sleeping with their eyelids only partially closed; and on examination, the globe of the eye will be found carried upwards, so that the cornea is sufficiently covered. In these cases, the patients being plunged in stupor, their eyelids remain motionless, so that this circumstance, together with the absence of secretion from the lachrymal gland, will generally produce inflammation of the conjunctiva.

We know that as patients affected with paralysis of the seventh pair of nerves cannot wink or shut their eyes, they are subject to more or less irritation of the mucous membrane of the eye, and this may produce inflammation and softening of the cornea. In fact some patients supply the want of voluntary control on the orbicularis palpebrarum by moving their eyelids with their fingers. But during sleep, unless they take special care to protect themselves, the globe of the eye may be exposed to the atmosphere, and, on waking up, they may find congestion and a pain in the conjunctiva, combined with blepharitis.

In severe forms of fever, whatever may be their nature, we may observe that the eyes remain partially open, and if the comatose state continues for any length of time, those patients may remain for several days and nights in the precise condition of persons affected with paralysis of the seventh pair. Moreover, during long continued fever, sensibility becomes blunted, the irritation of the eye is not felt, and consequently there is no transmission of the reflex action, which produces closure of the lids.

In fact the eyes may become filled with dust and other irritating sub-

stances, and the patient not feeling the presence of these foreign bodies, will make no effort to remove them.

The anatomical distribution of the nerves which preside over the motions of the eye will at once explain this whole matter.

When we wink our eyes three pairs of nerves are brought into play.

1st. The fifth pair (a nerve of sensation) transmits to the brain the sensation of pain, produced by the dryness of the cornea from long continued contact with the air, which sensation induces us to close the lids.

2d. The seventh pair (a nerve of motion) transmits to the sphincter palpebrarum the order to close the lids.

3d. The third pair of nerves (a motor nerve) sends a branch to the levator palpebra muscle, and thus presides over the elevation of the lid.

We have yet another nerve, viz., the lachrymal, a branch of the ophthalmic division of the fifth pair, presiding over the secretion of tears, which is necessary to lubricate the conjunctiva by the closure of the eyes.

There are, moreover, in these forms of typhoid fever, another set of agencies which are independent of those mechanical, irritating causes, and which act in some way that we cannot explain.

Thus we see a tendency in the mucous membranes to become the seat of semi-active and semi-passive congestions, easily turning to inflammation and sphacelus, so that ophthalmia, coryza, laryngitis, and other phlegmasias are the common sequilæ of the septic poison peculiar to those fevers. And we can easily understand that irritation of the cornea being produced by the fixity of the lids, inflammation would soon set in, with softening or gangrene of the organ.

A short time ago I was attending a young man who was suffering with a low nervous fever, something between cerebral fever and ordinary typhoid. Under the influence of the fever and the mechanical irritation from the eyes remaining constantly open, one cornea softened, and the patient lost his eye. This sad accident led me to think, that though it was mainly owing to the nature of the disease, yet its starting point was the continued fixed gaze and the immovable state of the lids. I accordingly imagined a plan, which I subsequently carried out with great success. Soon after a woman entered my wards at the Hotel Dieu with a severe form of typhoid fever. During the third week of the disease the nervous symptoms predominated, the eyes were imperfectly closed during sleep, so that the inferior part of the cornea was constantly exposed. In a few days the conjunctiva became red and the eyes covered with wax, twenty-four hours

afterwards the disease presented all the characteristics of catarrhal ophthalmia. On examining the eyes we could easily see that the inferior half of the cornea was swollen and discolored; there was violent photophobia, and the patient (though in a state of stupor) complained of her eyes, especially when the lids were raised. Sight itself was nearly gone. It then appeared evident to me, and to those who went around the wards, that the cornea would soften and the eye be almost inevitably lost. I had therefore but little hope, and I determined to follow this mode of treatment. I shut both eyes completely, and placed over the lids a small piece of raw cotton, and kept them in place by means of a moderately tight band. This small contrivance was applied at the morning visit; during the day the pain became less, and then ceased completely at night. Next morning, to my great satisfaction, I found both cornea restored to their natural color; the conjunctiva was still injected, but otherwise everything was doing well; there was no more photophobia, though the sight was not yet perfectly clear. This treatment was continued during three days, and then the bandage was removed. In the mean time, the general nervous symptoms had subsided—the stupor was at an end, so that she closed her eyes during sleep. During convalescence the patient was taken with a violent attack of cholera, and afterwards with acute colitis, presenting all the characters of epidemic dysentery, but her eyes continued perfectly well.

I will now relate a case which was observed by my friend Dr. Tardieu.

A man fell sick with scarlet fever, and soon the disease took on a low, adynamic type. The lids remained half open, and the cornea began to inflame and soften in the same way as it did in the case of the woman whom we have just seen. Then the eyes became extremely painful, with photophobia and considerable loss of vision. All at once an attack of erysipelas supervened, the upper part of the face was much swollen; the eyelids became very œdematous, so that the eyes were completely closed during four days. When the erysipelas ceased, and the patient could open his eyes, Mr. Tardieu was surprised to find that the patient's eyes, instead of being entirely destroyed, as he thought, were, on the contrary, quite well.

At this moment, when treatment by occlusion of the lids seems to be the order of the day, and invoked by many as a perfect panacea, I thought it might not be uninteresting to lay before our readers a simple narrative of the above facts; if some practitioner may gather a useful hint for action in similar cases, our purpose will have been accomplished.

RESEARCHES ON IDIOPATHIC SPASM OF THE GLOTTIS
AMONG CHILDREN,

With practical remarks on its Diagnosis, its Frequency and Treatment.

By DR. SALATRE, of Mulhouse, France. [Translated from the Archives Generales.]

Spasm in the muscles of the glottis may occur accidentally, in croup and false croup; it may also be a passing symptom in an attack of hysteria, epilepsia, and eclampsia; but *idiopathic spasm* of the glottis, the subject of the present dissertation, is only observed among children, and even among these the liability to this disease is confined to a certain period of childhood. This disease, the existence of which was long contested, has been first described by the English and German authors; and latterly several important articles on the subject have appeared in the French journals, so that it is now considered a distinct disease.

Nevertheless the published records of this nervous affection are few and far between, and much remains to be done in elucidating this obscure subject. All the authors who have written on the matter consider this one of the most insidious and deadly diseases to which children can be exposed, for it has proved fatal in the great majority of cases.

During the last nine years I have collected twenty-four cases of spasm of the glottis in children, and in submitting them to the profession I wish to draw the attention of practitioners to this disease, which I consider as more common than is generally supposed, being in fact often ignored.

I shall also attempt to show, by the result of my treatment, that our science possesses some precious remedies against spasm of the glottis, and that a cure may be obtained in many instances.

HISTORICAL CONSIDERATIONS.—In reading the old authors on those diseases of children which are characterized by dyspnœa, we must be struck with the confusion which prevails both in their diagnosis and classification.

In 1763 Home described the symptoms of croup, and the existence of false membranes, which are characteristic of the disease; before his time all the acute diseases of the organs of respiration, attended with difficult breathing and followed by rapid death, were embraced under one general denomination, viz., suffocating catarrh.

In 1769, Millar gave the name of *acute asthma* to a kind of remitting dyspnœa, which he said was quite frequent, and peculiar to children before the age of puberty.

The want of precision in his descriptions of this disease has been the cause of many discussions, and much uncertainty as to the nature of the affection he wished to represent. Millar related three cases in particular, which might be considered as types of many others he deemed unnecessary to publish. These observations are quite different from each other; the details are scanty and presented in a confused manner, so that after having read them it is difficult to say what was the disease. The first observation might pass for a case of croup; the child, who was four years old, died, and no post-mortem examination was made. The two other cases were those of children about the age of 18 months. The symptoms which they presented seem rather to be those of capillary bronchitis, than any other disease. They were all characterized by high fever and a very quick pulse.

Necker, Autenrieth and Cullen considered this disease as but another name for croup. Rush, of Philadelphia, in an article on the spasmodic asthma of children, cannot escape the imputation of having described, under this name, several cases of croup. Then comes Wichmann, a great advocate of Millar's opinions on asthma, who endeavored to prove the identity of this disease and to settle the characters which distinguish it from croup. This essay can be found at length in the first volume of Hufeland's Journal. On reading it we can easily see that the symptoms which he attributes to Millar's form of asthma, are perfectly applicable to croup. According to him children thus affected have fever, accompanied with a cough; their tongue is dry, their voice is hoarse and nearly extinct. These symptoms last a few hours and then they cease; but they return after the lapse of twelve or eighteen hours, and then become continuous; afterwards the orthopnoea increases; symptoms of asphyxia develop themselves, and the patients generally die on the second or third day. This author asserts that he only lost one child from this disease, and in that case the post mortem examination showed there were no false membranes in the larynx. He observes, moreover, that he met very few patients with croup, but he saw a great many cases of spasmodic asthma.

In his essay Wichmann spoke very highly of musc, as a remedy for this disease. His success would lead us to suppose that he had to deal with false croup, or spasm of the glottis, though we cannot recognize the symptoms of the latter disease in the description we have just analyzed.

Michaelis and Dreysig, in Germany, Royer-Collard and Double, in France, also endeavored to distinguish acute asthma from croup, their de-

scriptions being founded on those of Millar, together with such observations of their own as they fancied corresponded with his.

During the period which embraces the first half of the 19th century, the term acute asthma was applied by physicians to many different diseases of the respiratory organs. Taking only into consideration the most prominent symptoms, such as dyspnœa, and some degree of remittance, they confounded together, under the name of spasm of the glottis, croup, pseudo croup, œdema of the glottis, capillary bronchitis, tumors of the larynx, etc.

After Laennec endowed our science with his immortal discovery, the diagnosis of diseases of the respiratory organs became more precise and accurate; at the same time the researches in pathological anatomy were continued with a zeal unknown before. The consequence was, the expression "Millar's asthma" was abandoned in France, or considered as synonymous with nervous croup and laryngismus stridulus, for it was evident that the symptoms which had been attributed to this morbid species were borrowed from a number of diseases, differing both in their nature and in their seat. So that on account of the absence of authentic and accurate cases many physicians doubted the existence of any such disease, and it became no easy task to rescue this pathological individuality from the mass of rubbish which had been heaped upon it during one hundred years.

Symptoms.—Spasm of the glottis, like other nervous affections of a convulsive form, comes on with intermittent symptoms, presenting no regular type and separated by intervals of perfect health.

The first attacks are generally slight and far distant, so that they sometimes escape the attention of the parents. Children are seized with a slight oppression, which passes away in a short time; but after a few days, and sometimes weeks, the disease becomes more severe.

The attacks do not return regularly, and though they may come on at any time, they occur most frequently at night, or on the children's waking up. Sometimes this nervous affection begins with the most violent paroxysms.

In general the attacks come on, without any precursory symptoms, almost suddenly, and as if spontaneously; or, at other times, they may be brought on by accidental causes. In these cases the breathing may be cut short during 10, 20 or 30 seconds. This total suspension of respiratory movement is preceded by a loud and deep inspiration, or by several hurried and short breathings. During the spasm the children are in the greatest state of anxiety and impending suffocation, these symptoms vary-

ing, of course, according to the duration of the attack. After this agonizing state the spasm may either rapidly subside and suddenly disappear, or it may continue during a few minutes, though to a less degree. In the first case, which is the most frequent, we hear all at once several hurried and convulsive inspirations, with a hoarse and smothered noise during expiration, soon followed by loud cries, testifying that the spasm is over.

When, on the contrary, the attack is prolonged, the sounds in the larynx present different varieties of intonation; the little patients being no longer in imminent peril of asphyxia, are yet agitated and breathless from the incomplete passage of air through the constricted glottis.

At the commencement of an attack the spasm appears to exist especially in the constrictor muscles of the glottis, and also in those of the thorax and diaphragm. The sounds which follow a complete suspension of the respiratory movements prove that the spasm is disappearing, and that there are alternate movements of relaxation and constriction, permitting, however, the entrance of air into the lungs. In some rare cases the first convulsive inspiration is unaccompanied with any noise, and this might be accounted for by supposing that the muscles which dilate the glottis were alone constricted.

In a violent attack the thorax is immovable, the head is thrown back, the mouth wide open, the eyes are fixed in their orbits and turned upwards, the face, which is at first pale, soon becomes congested and purple, the tongue gets to be nearly black, the pulse becomes extremely quick and irregular, the face is covered with perspiration, the urine and fæces may be voided at the same time, and a slight foam appears on the mouth at the end of a paroxysm. In fact, children thus affected are in a state bordering on asphyxia; the organism of course, reacting against the danger. At that moment we observe a general agitation of the muscular system, the limbs are stiffened, the hands closed, the extremities drawn up, and at other times there are general convulsive movements.

The number of attacks is quite variable, sometimes they come on only once in ten or fifteen days; at others they may come on two or three times a week, or several times a day; as much, even, as twenty or thirty times in twenty-four hours.

These attacks differ in the same patient both as regards their intensity and duration, some being very violent and attended with much dyspnoea, while others may be very slight and transitory.

We are astonished to see, after a violent attack, how soon the children

resume their gaiety and wonted vivacity, and either return to play or go to sleep and enjoy the most peaceful slumbers. Nothing, then, would lead us to suspect the latent disease which threatens their existence. As soon as the spasm is over, the breathing becomes perfectly easy, for in this disease there is no cough, no hoarseness, no fever; the appetite is generally good, at the same time that the digestive and assimilating functions continue in their normal state.

The convulsive sounds produced in the larynx during the access are modified in many ways, and differ even in the same child from one attack to another. They differ in their pitch as well as their intonation and frequency, occurring during expiration and inspiration. They have been compared to a hiccough or a sob, to the spasmodic inspiration of whooping-cough, or to the convulsive respiration of hysterical women.

A person who has never seen an attack of spasma glottidis may yet obtain a very good idea of it by the following comparison: We have all seen children, from any exciting cause, utter a long and piercing shriek, and then hold their breath as if they were threatened with asphyxia. This state is characterized by a sudden and prolonged inspiration, followed by suspended breathing; in fact, it is a true spasm of the glottis and diaphragm, though of a more fleeting nature, brought on by some moral emotion, or an overstraining of the vocal cords by the previous cries. This predisposition in very young children to hold their breath should attract the attention of the physician, and lead him to suspect the possibility of spasm of the glottis. If these attacks come on without any appreciable exciting cause, the suspicion may well be confirmed.

(To be continued.)

EDITORIAL AND MISCELLANEOUS.

TYLER SMITH'S LECTURES ON OBSTETRICS.—*Lecture V.—Menstruation.*—Women are the subjects of a sanguineous discharge every month during the whole of the child-bearing era. The advent of the discharge is the chief external sign of puberty. It occurs in temperate climates at about the age of fifteen. Erroneous views have been entertained concerning the influ-

ence of climate on the appearance of the catamenia. The difference in the time of appearance of the catamenia in the Hindoo and in the natives of this country (England) is about two years—it being earlier in Hindostan. Mr. Robertson has shown that the mean age at which menstruation appears in the Esquimaux is sixteen—the extreme difference between hot and cold climates being thus three years. The difference, although not so great as heretofore imagined, is nevertheless sufficiently great to assure us that the influence of climate is powerful in determining the appearance of the catamenia. The discharge occurs sooner in the children of the rich than in those of the poor. The effect of living in large towns is to hasten the advent of the flow. “Raciborski believes that race has an influence upon puberty apart from climate; as, for instance, that the English child reared in India menstruates at the time she would have menstruated in this country; but if a Hindoo child be brought to England, she will menstruate as early as though she had remained in Hindostan. It is also believed that Jewish females menstruate earlier in cold latitudes than the ordinary population. Probably climate, hygiene, temperament and race, all exert an influence in promoting or retarding puberty, but within a narrower range than was formerly supposed.”

The catamenial era spreads over about thirty to thirty-five years, which brings the “change of life to about forty-five or fifty years.” This varies, however, in either way, some going over, and others falling short of this time. Much of the child-bearing era of women is occupied in gestation and lactation (during which, as a rule, menstruation does not occur). The cases in which the catamenia appear throughout the term of pregnancy are rare. A sanguineous discharge for one or two periods after conception is more common. Menstruation does not, as a rule, occur during lactation, but its occurrence at this time is much more common than in pregnancy. The catamenia return at regular intervals, and the catamenial month is four weeks, or twenty-eight days. “In women who menstruate two or three days only, the interval between the cessation of one period and the beginning of another is longer, and in those who are many days unwell, shorter; but the length or brevity of the discharge does not usually affect the time of its return. There are instances in which the time of recurrence is regularly delayed or hastened—some women menstruating regularly every six weeks, others every three weeks. Notwithstanding the general tendency to regularity in the functions, it is common to find variations of a few days.

Each "period" lasts, in healthy women, from four to five days; but there are various constitutional peculiarities in this respect. The result of microscopical and chemical examination is, that the catamenial discharge consists of blood modified by the secretions from the uterus and vagina. Dr. Whitehead has shown that the fluid as it escapes from the os uteri is alkaline, but it becomes acid by mixing with the vaginal secretion. This acidity prevents coagulation and decomposition of the fluid. The idea that the blood of the catamenia contained no fibrine has exploded, and the phenomenon of its not coagulating after being discharged from the vagina is owing to its previous contact with the acid secretion of the vagina. "When contraction of the os uteri exists, and the menstrual blood does not escape readily, it coagulates in utero, and is expelled with pain in the form of clots; or, if the fluid is in quantity sufficient to neutralize the effects of the vaginal mucus, it coagulates after its escape externally. I use the terms 'discharge,' 'loss,' or 'flow,' in preference to that of secretion, because the catamenia are essentially different from the products of any secretory process."

Menstruation has a marked influence on the female economy; beauty of form, the development of the affections, etc., being dependent on the regular and healthy performance of the function. In many women a tendency to relaxation of the bowels indicates the approach of the discharge. Women are more irritable and hysterical at this time; but the establishment of the "flow imparts a new stimulus to all the organs of the body."

The determination of blood at these periods renders the uterus larger, darker in color, firmer to the touch, and throws it lower in the vagina. The fallopian tubes are also engorged, and have been found almost black. Ordinarily the canal of the cervix is dilated at somewhat subsequent to the period. The uterine sound is thus more easily introduced soon after menstruation. Sexual feeling is strongest soon after menstruation. It is at this time that the tendency to nymphomania and moral aberrations is greatest.

The cause of menstruation is referable to the ovaria. "These are the prerogative and ruling organs." When the uterus is congenitally absent, but the ovaria and other organs present, the monthly nidus occurs—indicating the regular occurrence of ovulation; but there is no sanguinous discharge, unless it is vicarious. But in cases where the ovaria are absent, menstruation never occurs, let the uterus be ever so perfect. We look to the ovaria, then, as the exciting cause of menstruation.

Phenomena analogous to that of menstruation occur in the lower order of animals ; in some amounting to a real discharge, in others to a periodical turgescence of the parts concerned in generation.

The menstrual flow takes place from the mucous lining of the body of the uterus. This has been observed in cases of procidentia, but more especially in cases of inverted uteri, where the blood has been seen oozing from the surface.

Personal examination of three uteri from women who died during the catamenial flow proved the mucous membrane of each of them to be "either in a state of dissolution, or entirely wanting." In the case of a woman dying of apoplexy during menstruation, "the mucous membrane was altogether gone." It was perfect in the cervical canal, but ceased abruptly at the os uteri internum. The internal surface of the body of the uterus presented the same pulpy and denuded appearance that it does after abortion.

Personal observation teaches, then, that during every menstrual period "the mucous membrane is in great part or entirely broken up, and its debris discharged during each menstruation. The blood is probably exuded during the breaking up of the mucous membrane, and the duration of the menstrual period represents the time occupied in this periodical decadence and renewal of the mucous membrane of the body of the uterus."

Cases of membranous dysmenorrhea prove this. A new mucous membrane forms after abortion and after parturition. A new mucous membrane, then, is formed every month, as a partial preparation for a fecundated ovum ; the probabilities of its implantation being greater under such circumstances. "The mucous membrane may become the seat of the changes consequent on impregnation just before a menstrual period, and in cases where menstruation is suspended. According to my view, the mucous membrane of the uterus becomes excrementitious every month, and is discharged from the cavity of the uterus in a state of disintegration, and the uterus forms a new mucous coat, by a process similar to the reproduction of lost parts." This is proved to some extent by reference to menstrual ulcers on the surface of the body. These discharge at the monthly period, and in the interim granulate and even heal over, to break out again at the next period.

Lecture VI.—Conception, and the early development of the ovum.—As the ovule makes its exit from the graafian follicle, a remarkable change occurs. It becomes transformed, or disappears altogether, and we have in

its stead the future embryo-cell occupying the site of the macula germinativa, the true germinal point of the future being. "It is, however, as yet uncertain whether the embryo-cell, or vesicle, which replaces the germinal vesicle, is formed just before, or just after, the act of fecundation."

On the part of the female, then, we have the ovule, the essential part of which is the germinal vesicle or germ cell. On the part of the male we have the spermatic fluid, the essential part of which is the sperm cell. The spermatozoa, or bundle of particles in the sperm cell, correspond with the nuclear particles of the germ cell.

Recent researches have gone far to solve the mystery of fecundation. In 1843 Dr. Martin Barry satisfactorily demonstrated the existence of the spermatozoa in the ovum of the rabbit. This has been corroborated by the experiments of Mr. Newton, Keber, Dr. Webb, Nuissner, Nelson and Dr. Allen Thompson. Having penetrated the ovule, the spermatozoa lose all motor power, and become lost; having, however, imparted to it the force which leads to the formation of a future being.

(To be continued.)

THE "WESTERN LANCET" for May, 1856, contains an editorial animadverting pretty severely upon the course recently pursued by some members of the Ohio State Medical Society. It appears that the State of Ohio is rather more than ordinarily infested with quacks, and, "by hook or by crook," some of the dirty miscreants have managed to slip themselves into seats in the State Medical Society. The wretches have shown the "cloven foot" by having the audacity to make war against the Code of Ethics of the American Medical Association; hence, the just indignation evinced by the Editor of the Lancet. He intimates that there are "traitors within the citadel," and here he broaches a theme which is ripe with interest to the true physician.

At the same time that the Medical profession have just grounds for complaint against the communities they serve, still it is meet that we should revert occasionally to ourselves and examine into our own omissions or obligations. We make a terrible croaking about quacks, and one would suppose that our jealousy would ever be so wide awake, that our own ranks would never be defiled by anything savoring of association with lepers. Yet is this true in practice? By no means. One, from a sense of benevolence, or, oftener, of fear of offending his patron, will consult with the homeopath or Thompsonian; another will admit the audacious or silly *ad*

captandum effusions of a notorious quack to appear in the pages of our own journals; another will propose the name of a quack for membership in our societies, and all present will vote *aye*, without ever inquiring for one moment into the standing of the applicant. In this way we admit the disease amongst us; "evil association corrupts good manners;" and soon we find "traitors within the citadel." It is ridiculous nonsense to be appealing to the world to assign us a protected position, when we make so little effort to attain it ourselves. Put our own shoulders to the wheel and then call on Hercules. Let physicians cease to recognize quacks, either personally or professionally; and if one of our own brethren allows himself to fall to the level of the wretches, let him enjoy the element of his selection. The man who would thus degrade a noble calling should have nothing of good to expect from its honest votaries. To all such we would ever say—"The hand of Douglas is his own," and must be trebly gloved ere it could touch such a loathsome object.

ACETATE OF LEAD IN HYPERTROPHY OF THE HEART.—The Medical Examiner for April contains an excerpt of our translation of "Observations on the Use of Chrystalized Subacetate of Lead in Hypertrophy of the Heart. By J. L. Brachet." We acknowledge the appropriateness of a note by the editor, claiming for Professor G. B. Wood priority in the use of this remedy. It seems that Prof. W. has been using the remedy since 1842, and that he refers to its efficacy in his practice.

NOTICES OF BOOKS.

"Digestion and its Derangements—the Principles of Rational Medicine applied to Disorders of the Alimentary Canal;" by Thomas R. C. Chambers, M. D., Physician to St. Mary's Hospital, London, etc.

"On the Organic Diseases and Functional Disorders of the Stomach;" by George Budd, M. D., F. R. S., Professor of Medicine, in King's College, London.

Samuel S. & William Wood, 261 Pearl street, New York. 1856.

There are few subjects so attractive to the professional and non-professional reader as disorders of digestion. It may be due to the fact that the overtaxed physician is in this instance but the fellow-sufferer of the injudiciously working layman, and that both are, to a certain extent, ignorant

of rational modes of treatment. The treatment of diseases of the stomach has been so long empirical, indigestion has been so constantly pooh-poohed, and been set down as one of the minor ills, we have so long been put off with carminatives, stimulants, bitters and alkalis, that we hail with satisfaction the two works whose titles are mentioned above, especially when we know that the names of the distinguished authors may be taken as criterions of the value of the contents.

In the short space of fifty pages, Dr. Chambers gives some very elaborate illustrations of the physiology of the alimentary canal, and his language is so clear and his descriptions so concise that folios could not give a better description. One observation demands especial attention, not from its originality, but from the fact of its being so constantly overlooked. We allude to the *executive* duties of the fluids of the alimentary canal. "When they are retained and dispersed by the blood among the fluids and solids of the organism, they are certainly injurious by their presence where they are not wanted, as well as by their absence where they are wanted. Jaundice is the most striking instance of this, the malady of costiveness is another." That almost forgotten but valuable book of Dr. Hamilton, on purgative medicines, abounds with instances in proof of the advantages of washing out, if we may so term it, the alimentary canal by thorough and profuse purgation.

Dr. Chambers divides food into two classes, complementary, or those whose nature enables them to become portions of the typical solids or fluids of an animal body, and accessory foods, or those by whose use the metamorphosis of the organic structures are modified, so as best to accommodate themselves to required circumstances, such as alcohol, tea, coffee, spices, etc. It is well known that tea and coffee will prevent the waste and metamorphosis of tissue, in a way out of all proportion to the amount of nutriment they contain; and the cocoa of the Peruvian will enable him to sustain life for many days without food, although in itself it is innutritious. Dr. Chambers has taken the right course in discarding the fashionable chemical jargon of the present day. He does not calculate the value of foods by the amount of carbon, hydrogen, nitrogen and oxygen they contain, but stands upon a broader basis, and depends upon experience and physiology for the use as aliments. The man who should be condemned to live on a food considered specially adapted to his wants by the mere chemist, would probably starve long before the experiment had had a lengthened trial. Chemistry may be the handmaid, but is not yet the

principal in physiological speculations, and we must have patience and take a more latitudinarian view of chemical relation before its true value can be recognized. The absurdity of speculating upon mere chemical data is well shown by Dr. Chambers in referring to the error of Baron Liebig in stating that oily foods are objects of disgust to the natives of warm climates. In the East, oil is as necessary as rice or meat, and the greasy cuisine of Spain and Portugal is proverbial. "Throughout the globe there is a craving for fat in some form or other; it increases the efficiency of the body, making more easy its motions, adding to its beauty, and forming a component part of the prime material means of communication between mind and matter, by being a necessary constituent of brain and nerve. We would direct the attention of the practitioner to the chapter on starch. We are so much in the habit of ordering gruels and arrowroots to our patients that we shall be somewhat surprised when we are told, that to the invalid they are not only innutritious but even injurious." Starch has to be acted on immediately on its entrance into the mouth, and chewing is of importance, not only to its mechanical division but even to its chemical solution. For this reason, some solutions of starch, usually considered invalid dishes, such as arrowroot, gruel and the like, disagree with persons who do not easily secrete saliva, they descend unmixed with buccal fluid, and in consequence are not converted into sugar until they reach the duodenum! As the majority of diseases are accompanied by a diminished secretion of saliva, and as few invalids will take the time and trouble thoroughly to masticate, the fallacy of giving such foods is obvious.

Dr. Chambers is evidently not in favor of the Maine Liquor Law. Water he considers an extravagance only to be allowed to those whose means are sufficient to procure the extra amount of food which its use occasions. While the use of water and salt increase metamorphosis and demand a frequent and rapid supply of new matter, alcohol and its congeners produce absolutely the reverse effect, diminish excretion, save tissue, and, in the words of Dr. Moleschott, "may be considered a *box for savings*." A man who eats little and drinks moderately of alcohol, retains in his tissues and blood more than he who, under corresponding circumstances, eats more, without taking beer, wine or brandy. "*Clearly, then, it is hard to rob the laborer, who in the sweat of his brow eats but a slender meal, of a means by which his deferred food is made to last him a longer time.*" We would direct particular attention to the section devoted to a consideration of the varied appearance of the tongue in disease. The sub-

ject has rarely been treated so lucidly and so clearly and with so little regard to technicalities. The frequent and numerous fallacies are clearly-stated, and we may take the chapters in this work as giving a full *resumé* of, and a guide to a comprehensive glassology.

Our space will not permit us to enter into any detailed view of Dr. Budd's work on the stomach, but its contents are full of interest and instruction. He, as well as Dr. Chambers, finds ulceration of the stomach more frequent in females than in males, and among the poor than among the well to do classes. Several interesting cases will be found recorded in the seventh lecture.

A great advantage of the work is its lecture form, a certain amount of conversational familiarity is imparted to it, and the whole is, as it were, vitalized, by the fact that we constantly feel as if the words were directed specially to ourselves. While cordially recommending both works to the attention of our brethren, we are sorry we cannot compliment the publishers on the mode in which they have reproduced them. They are so full of typographical errors, that we would suggest whether it would not be an advantageous plan to the publishers to furnish a new edition, and before giving it forth to secure the services of a proof-reader, as in many instances sentences are perfectly unintelligible, and in others the authors' views are grossly misrepresented.

"The Practitioner's Pharmacopœia and Universal Formulary, etc.;" by John Foote, M. R. C. S., London. New York: Samuel S. & William Wood. 1855. pp. 388.

In the first part Dr. Foote gives a few general rules for the treatment of the most common affections and accidents which are apt to come under the notice of the physician.

This little *resumé* is very well got up, but we cannot see any advantage in a synopsis of this kind. The well instructed practitioner seldom needs it, and at the time of an accident, or in any other sudden emergency, we cannot stop to consult authorities, we must act.

The abstract of the three British Pharmacopœias, which form, as it were, the second part of this book, must prove useful to those who have not access to the originals. To these the American editor has added the forms of the U. S. Pharmacopœia.

The third part contains some "two thousand classified prescriptions,"

selected from various sources. We are often at a loss in a case for some particular combination of remedies which we have seen recommended, but are unable at the time to lay our hands upon it. This little work at once supplies what we are in search of, and by its arrangement of each formulary under its appropriate head, enables us to find it without much trouble. We were struck, in looking over its pages, with the simplicity which characterizes the prescriptions of some of the most distinguished practitioners. It is seldom that more than three articles are named in the same recipe. There is no doubt that many substances really inert have acquired a reputation for virtues they do not possess merely by being so often combined with powerful medicines, while at the same time remedies in themselves useful are thrown aside from the physician not discerning their value, masked, as they are, by others of no power.

The work does credit to the enterprising publishers, Messrs. S. S. & W. Wood.

"Ophthalmic Medicine and Surgery;" by T. Wharton Jones, F. R. S., Professor of Ophthalmic Medicine and Surgery, in University College, London; from Messrs. Blanchard & Lea: Philadelphia.

There is no work on the subject more likely to prove serviceable, to the student and practitioner than the above. Without being as voluminous as some others in general use, it contains nearly everything essential to instruction in diagnosis, and, with few exceptions, is sufficiently full on the treatment of diseases of the eye.

The work is well illustrated with numerous woodcuts, and comprises a glossary of the terms used in ophthalmic medicine.

"BROWN, ON SURGICAL DISEASES OF WOMEN."—This is one of the valuable new works lately issued by those enterprising publishers, Blanchard & Lea, of Philadelphia. We have noted its gradual appearance in the Medical News and Library, each number of that valuable little monthly having contained a few pages, and the perusal has afforded us great pleasure. The work now comes to us in a form most highly creditable to the taste of the publishers.

Mr. Isaac Baker Brown is an "F. R. C. S., (by Exam.)", and Surgeon-Accoucheur to St. Mary's Hospital, etc., etc. His book is one more argument in favor of Specialties in Medicine. Doubtless the author is thoroughly educated in all the branches of his profession, but it is evident

that he is giving especial attention to the management of diseases of women, and the Profession are now reaping the fruits of his observation. He will, no doubt, doubly shock the anti-specialists by putting forth a book which only treats of "some diseases of women admitting of surgical treatment." To have thus confined his intellect will afford a new theme for grinders of medical machine poetry.

The author treats of Ruptured Perineum, Prolapse of the Vagina, Prolapse of the Uterus, Vesico-Vaginal Fistula, Laceratio Vaginæ, Polypus of the Uterus, Stone in the Female Bladder, Vascular Tumor of the Meatus Urinarius, Imperforate Hymen, Encysted Tumor of the Labia, Diseases of the Rectum resulting from certain conditions of the Uterus, and Ovarian Dropsy. Any one who would desire a well digested article on the above subjects, may purchase the book with confidence. The article on Ovarian Dropsy is a particularly able one, and should be carefully studied by every one interested in the study of that formidable disease. We annex the author's "Conditions rendering the operation of Ovariectomy justifiable."

"1. The surgeon should be satisfied, by most careful and repeated examination, that the tumor is ovarian; and those with whom he may consult should take equal pains to form an unbiassed opinion.

"2. That the tumor is increasing, and that the disease will be likely to progress to a fatal issue, if allowed to take its course.

"3. That such of the different modes of treatment, already described, as appear suitable to the case, excepting the excision of a portion of the cyst, have been fairly tried without lasting benefit.

"4. That the tumor is not cancerous.

"5. That the patient is not so reduced in her general health and vigor, as to render her an unfit subject for a formidable operation.

"6. That there is no evidence of the existence of adhesions.

"7. That the fluid is not highly albuminous."*

The author then considers the subject of the stage of the disease when the operation should be performed. He advocates an early operation, and agrees with Dewitt, that "it is by far the *most merciful* plan of treatment, if adopted early."

* Mr. Brown believes "that the albuminous condition of the fluid exhausts the system in a similar way to that of albuminuria from disease of the kidney." He thinks that it contra-indicates an operation as clearly as the latter disease.

ATLAS OF CUTANEOUS DISEASES, by *J. Moore Neligan, M. D.*—The above is the title of a work which we have lately received from the publishers, Mess. Blanchard & Lea, of Philadelphia.

The plates, though somewhat small, are mostly well executed, and represent the greater number of the skin diseases.

The letterpress accompanying the plates give a succinct description of each figure, with reference for a more full account to the chapter and page of the same author's "Treatise on Diseases of the Skin."

The object of the author is to supply to the student and junior practitioner a work moderate in size and cheap in price, to which to refer in the study of what has ever been admitted to be an obscure class of diseases.

LIST OF MORTALITY FOR FOUR WEEKS, ENDING MAY 31, 1856.

	1st Week.	2d Week.	3d Week.	4th Week.	To al
Total number of deaths.....	94	84	67	128	373
Males	56	47	25	74	202
Females.....	29	25	26	36	116
Sex not stated.....	9	12	16	18	55
Whites.....	68	66	50	101	285
Blacks	10	11	10	12	43
Mulattos	8	8	4	12	27
Color not stated.....	8	4	3	3	18
Native Americans.....	17	24	5	34	80
Northern States.....	1	0	0	1	2
Western States.....	3	3	1	3	10
Southern States.....	13	21	4	30	68
Foreigners	18	26	8	32	84
English.....	1	1	0	0	2
Irish	1	12	2	14	29
French	2	3	1	3	9
Germans	6	5	2	5	18
Place of birth not stated	59	34	54	62	209
Age not stated	17	7	12	17	53
Under one month old	13	8	8	13	42
From one to five years old.....	22	24	20	39	105
From five to ten years old.....	2	2	2	5	11
From ten to twenty years old	3	1	1	4	9
From twenty to thirty years old.....	10	15	7	7	39
From thirty to forty years old.....	8	5	4	19	36
From forty to fifty years old.....	9	9	4	10	32
From fifty to sixty years old.....	6	7	3	5	21
From sixty to seventy years old.....	3	2	4	5	14
From seventy to eighty years old.....	1	2	1	2	6
From eighty to ninety years old.....	0	1	1	0	2
Over ninety years old.....	0	1	0	2	3
Typhoid Fever	0	3	0	2	5
Cholera	2	1	4	4	11
Other Diseases.....	80	74	56	109	319
Intemperance	0	0	0	0	0
Accidental.....	2	1	0	4	7
Still-born.....	10	5	6	5	26
Disease not stated	0	0	1	4	5

St. Vincent's, St. Paul's and St. Patrick's Cemeteries have not made out their reports for the 3d week.

CHARITY HOSPITAL REPORT—From the 1st of May to the 27th, inclusively. :

Admitted,.....	577
Discharged,.....	501
Died,.....	50

OBSTETRICAL DEPARTMENT.

Males,	3
Females,.....	4

ERRATA.—In an article in the last number of the Journal, on the subject of yellow fever, headed "Communicated," the author's name was inadvertently left out. It should have been signed J. C. Cummings, M. D. On page 162, eighth line from bottom, read *grovelling* in place of "groundling." Page 142, top line, read *I at first thought*, instead of "I first thought."

EXCERPTA.

A CASE OF EPILEPSY, FOR WHICH THE PATIENT WAS TREPHINID. *By D. Hayes Agnew, M. D., Surgeon to the Philadelphia Hospital, Blockley.*—Just conclusions in medicine can only be reached by a faithful record of facts; and in no case is this more necessary than where, from the circumstances attending the disease, the patient is likely to be subjected to the hazards of an operation.

It is on this account I place on record the following case: George Gerlach, a German, twenty-four years of age, of sanguine temperament and remarkable physical development, was admitted into the lunatic department of the Philadelphia Hospital, laboring under a mild form of insanity. Eleven years previous to his admission, and before coming to this country, he received a violent stroke upon the top of the head by a falling piece of timber. As far as can be gleaned from his friends, no symptoms of compression existed at the time; but two or three months subsequently he was attacked with epileptic convulsions, which becoming more and more frequent and violent, his mind at length began to suffer materially as the result. During my term of service in the Institution, he came under my notice. His attacks were very violent and as frequent as two or three every week. Examining his head I discovered, close along the position and direction of the sagittal suture, a well marked depression, one inch

and a half in length and in which the little finger could be laid. At my suggestion, his friends readily agreed there should be something attempted for his relief. Having placed him under the influence of ether, he was brought before the class in attendance, the parts shaven, the bone well exposed, and, by a large-sized trephine, the most depressed portion of the bone resected. The dura mater was very firmly attached to the piece, but by careful manipulation was separated without the least injury to the membrane. During the operation he was seized with a very violent convulsion, which lasted for several minutes. The external table of the part removed, presented two considerable depressions. The internal table exhibited the fissures of a beautiful stellated fracture, while both, together with the diploe corresponding to the two indentations, had almost disappeared, existing only as a thin lamina. If any undue pressure did exist, of which I have no doubt, it was the result of the absorption of the parts referred to, rendering the other portion more prominent. The parts having been dressed the man was placed in the clinical ward; a water dressing to the wound and small doses of hydrarg. chlor. mit. prescribed, with a view to counteract the dangers of meningeal inflammation. He recovered without a single untoward symptom. The first week succeeding the operation he had two convulsions, after which they did not recur more than once a week, and sometimes once in two weeks, and then very mild compared with those previous to the resection. Being very much relieved, in all respects, he left the hospital and, as far as I can learn at the present time, continues materially benefitted. Time can only test the permanency of the relief. If the piece of bone removed was the primary cause of the epilepsy, we would have no reason to argue an unfavorable prognosis because the attacks did not entirely subside, as the long continuance of that exciting cause would have a tendency to develop a condition of the encephalic mass calculated to continue for a time, at least, from habit.

THE DEATH TIC.—*A Chapter on Medical Ethics.*—We were strolling down Regent street, the other afternoon, gravely meditating, as usual, on the state of the medical profession, and the growing influence and utility of the Medical Times and Gazette, when we were joined by an old school-fellow, a partner in an old-standing legal firm, who was sauntering home from Lincoln's-inn to his house in the regions once called Tyburnian, but now Westbournian. Such magic is there in the change of one syllable!

We had not seen our friend for three or four years, and the last we heard of him was that he was in a very delicate state of health. So we congratulated him on looking much stouter and more robust than of old.

"Ah, my dear fellow," he replied, "thank heaven, I feel very well now; quite alive, and up to everything. But 'twas quite another story four years ago. I was seedy enough then. I am well enough now, though, no thanks to the doctors. Ever since that time I have been at war with your learned profession, I can tell you."

"But, why?" we replied; "you were ill and are well; what wrong have the doctors done you? I thought you were going to give us some credit for your recovery."

"Not a bit. But I'll tell you the case, and leave you to judge for yourself. I had been dreadfully worried; things did not go right at the office; money was uncommonly hard. I could not venture to tell my grievances even to my wife, and I got little sleep; took little breakfast, no luncheon, except bitter beer; then at dinner I ate fast and furious; no real appetite; but I tried to get it over, as a disagreeable duty, and then took a good deal of wine. I see all this clearly now, though I could not see the harm of it at the time. Well, while in this condition one evening I had an attack of cold shivers; next day up I would get and insist on going out; but the following morning found old Dulph, the family apothecary, at my bedside. Kind old man! He uses the word *we* for everybody. 'I see we are feverish, my dear sir,' he said; 'we must keep abed; we must send you some draughts—one every four hours; we must promote gentle perspirations and so on.' In fact, to make a long story short, I was in for a bad influenza, and I was not out of it for a long, long time. Week after week, I was as weak as a rat, coughing incessantly. My friends began to ask if Mr. Dulph had applied the stethoscope; but we could get nothing very satisfactory out of him. He said that we had a great deal of weakness to contend with, but the tonic draughts and change of air would set me to rights, and yet that it would be a work of time.

"So, while things were in this plight, and I could plainly see that my friends felt very shaky about me, and one was advising me to call in Doctor This, and another Doctor That, at last, as a satisfaction to my family, and also to see if I could get some relief, I went one morning with my wife, without saying a word to old Dulph, to consult the great Dr. Cæruleus Mortisage, physician to St. Lazarus's infirmary for diseases of the windpipe, fellow of a dozen societies, professor of mortal pathology,

or something of the sort, at the collegiate school of medicine, and, altogether, a medical gun of the greatest possible calibre. Well, sir, I was stripped and weighed and measured, and tapped and rapped, till my ribs ached; I was made to gasp and breathe, and cough and count; every inch of me was explored; but I could plainly see that the more I was explored, the worse was the doctor's opinion of my case. At last, when he had finished his investigation, we asked him anxiously what he thought. And I scarcely can fancy a poor wretch at the Old Bailey looking more anxiously in the foreman's face when he comes in to deliver the verdict of the jury, than I did at the face of Dr. Cæruleus Mortisage, in order to anticipate what *his* verdict would be. As for my poor wife, she trembled so that I thought she would have dropped off her chair.

"However, after a short preamble, the opinion was delivered calmly and not unkindly; but it was very positive and unfavorable enough, in all conscience. He told me a good deal which I could not understand, about congestion, or consolidation, or something of that sort, but said it was his duty to tell me he considered my case a bad one; he believed I should not be able to go on with my usual pursuits, and hinted at the expediency of parting with my share in the business, and retiring to Bournemouth or Hastings. He spoke long and kindly, but all to the same purpose, and took no great pains to conceal the fact that he thought me a dead attorney.

"Just as we were going (for I had paid him his fee) it struck me that something was missing, I could scarcely recollect what, so stunned was I at the sentence that had been passed on me, till my wife said, 'Are you not going to give us any prescription, Dr. Mortisage?'

"The question seemed to strike him all of a heap, for he had evidently forgotten this part of his office; but he took up his pen and wrote something, which he gave me, and we left.

"So soon as we got into our carriage and I could collect my thoughts a little, my anger knew no bounds. Here is this rascal, I said, pronouncing sentence of death on me and scarcely thinking it worth his while to write a prescription; what good can such a man's treatment do me? He begins with the notion that treatment is of no use, and when that is the case what good is he likely to do? So I tore the prescription into fifty pieces and threw them out of the window. If I am to die, I said, be it so, but I'll have a good stand-up fight for life first of all. So back I went to old Dulph, who gave me lots of tonic draughts; then I went to stay with my

wife's aunt in the country, an uncommun old lady for feeding one up, and then I found out that things at the office were not so bad as I feared; in fact, if I had fretted less they never would have seemed so bad, nor have been so bad, and everything went on very well without me, till after about six months of care, and nursing, and change, I got better, and here you see I am, not a bit like a dying man. The next time I am ill, depend on it, I won't go to any of these ominous death-tic fellows; if I had not been a strong-minded man I should have died of fright. When I am ill next I'll choose a man who has a heart under his waistcoat; one who don't look upon his patient merely as a mass of decayed lungs or arteries, or what not, but who will put a little heart and soul into the work of cure, who will fan one's hopes and desires of life, and so feed the flame, instead of putting a wet blanket upon it, and seeming as if his whole soul were bent upon a post-mortem examination. For my part I never meet Mortisage in society without a kind of awkwardness; I feel somehow as if my being alive and walking about was a sort of standing imputation on his skill in diagnosis; this feeling quite haunts me, and I sometimes wonder whether a physician could not bring an action against a man for obstinately, pertinaciously, and offensively living on from year to year, in spite of the clearest and most scientific evidence that he ought to have died long ago."

Thus far our loquacious and iracund attorney had spoken, when we parted with mutual salutations, he to his dinner, and we to ours.

In spite of the apparent exaggeration of some of his statements, it occurred to us that they might usefully furnish food for reflection to our readers. Certain it is that the profession is quite conscious of the existence of a class of practitioners—and *society is not quite ignorant of it either*—who are too apt to look on human beings as mere objects; who, in cultivating the art of distinguishing diseases with the greatest possible accuracy, are not equally studious of the means of curing them; who regard physical alterations of structure to the neglect of that vital force which overrules the whole machine; and who, above all, practice in a hard, cold spirit, without exhibiting anything positively wrong, or inhuman, or unkind, but yet without the sympathy, the heartiness, as it were, requisite for genial and successful influence upon man in his entire nature. This is the fault which leads them to be ready rather to foretell impending mischief, than to prevent it; and it is most curious to observe how prevalent the custom of giving hopeless, but wrong, prognoses has been, in the

case of diseases of these very organs, the accurate diagnosis of which is among the greatest triumphs of modern medicine.

There are few of us, perhaps, who cannot call to mind some condemned case of phthisis, or of disease of the heart, in which the sufferer has continued to live out his time in defiance of mortal diagnosis. The moral we would draw, at present, is the necessity of caution in all cases, in giving opinions which exclude all hopes of recovery, and of never neglecting, in an apparently incurable malady, such treatment as would be most likely to preserve life, if the case admitted of recovery.—*Med. Times and Gazette.*

THE DUTIES OF CORONERS.—*By David Uhl, M. D.*—The office of coroner is so ancient that its origin is lost in the darkness of antiquity. That it existed in the time of King Alfred is clear, for that monarch punished with death a judge who had sentenced a man to suffer the extreme penalty, upon the coroner's record, without allowing the delinquent liberty to traverse. At one time the functions of the coroner were numerous and various, but his duties have been so far simplified that (with a few exceptions) practically they are confined to the holding of inquests on the bodies of persons who have died by violence, whether death has occurred accidentally, or otherwise; to inquiring into all cases of sudden death which have happened *under circumstances of suspicion*; to apprehending persons charged with murder, or manslaughter; and finally to binding over prosecutors and witnesses, according to law; to appear and give evidence in another court at the future trial of the accused. Cases of *sudden death* occasionally occur where it is difficult to decide whether it has or has not arisen from natural causes, and it is doubtful what construction ought to be put on these words of the statute.

The coroners in this, as well as other cities, have ever been disposed to give them their fullest signification, and to hold inquests on the bodies of all persons who die suddenly; but this liberal interpretation of words has led to the unnecessary multiplication of inquests, and been the means of gross and extravagant expenditure. Jervis says, "the dying suddenly is not to be understood of a fever, apoplexy, or other visitation of God, and coroners ought not in such cases, or in any case, to intrude themselves in private families" (which is frequently done in this city) "for the purpose of instituting an inquiry, and unless there be reasonable grounds of suspicion that the party came to his death by vio-

lent or unnatural causes, there is no occasion for the interference of the coroner." In consequence of the coroner of Philadelphia desiring to extend his jurisdiction to all such cases, the Board of Managers of the Pennsylvania Hospital applied to Justice Binney, Esq., for his opinion, which, (as the same difficulty has arisen in this city,) we quote as follows:

"1. In regard to persons who have suffered recent injury from violence, and are brought at once into the hospital, and die there suddenly, in the plain sense of that expression, I advise them that the coroner has jurisdiction, and that they should give him notice of the death a reasonable time before interment.

"2. In regard to such as may be brought there who have been wounded, that is to say, stabbed, or shot, or cut, or beaten by another, and shall afterwards die, I advise the hospital, in like manner, to give the notice, and submit to the coroner's jurisdiction, without regard to the time that may elapse before death.

"3. But in regard to cases of accidental injury, broken limbs, burns, bruises, and the like, where the patient does not die suddenly, but lives days, or weeks, and then dies from fever, inflammation, or other morbid affections, caused by the injury, and where there is *no ground of reasonable suspicion* that the injury involved any person in criminality, I advise that the hospital is under no obligation to give notice of the death to the coroner, and that the coroner has no right to hold an inquest on the body.

"4. In cases of sudden death by apoplexy and the like, among the patients in the house, there being no cause whatever to suspect violence and unnatural means, the coroner has clearly no right to hold an inquest."

There is, perhaps, no department of municipal government more essential to the public safety than the office of coroner; but its duties appear to be imperfectly understood, if not entirely misconstrued, by the present, as well as recent incumbents. The verdicts rendered by these officials have recently been very indefinite, such as "Found Drowned," "Death by Accident," "Death by the Visitation of God," "Died from Grief and Old Age," "Died from some Inhuman Means," and so on, which are merely verdicts* of fact. They have conducted their investigations as if their

* One of the most amusing verdicts we have ever read, was recently rendered by coroner's jury in this city. A child had been smothered by its mother, who was

sole duty were to ascertain the kind of death, and they have nothing to do with the guilt or innocence of those accused of causing the death. This, however, is undoubtedly a very grave error; it is their duty to inquire into every circumstance relating to the death of the deceased; whether it occurred through accident, or design, or through the gross ignorance or criminal negligence of any person.

It is the coroner's duty to receive and endeavor to obtain evidence on all sides, and to compel the attendance of such witnesses as can give any information in the case under investigation. The inquest held upon the bodies of the victims of the recent accident at "Spuyten Duyvel Creek," on the "Hudson River Railroad," is an illustration of the irregular manner in which such investigations are usually conducted. The verdict of the jury was, that "The deceased came to their death by the bridge giving away in consequence of the accumulation of ice against it." No rigid inquiry was instituted, whether the bridge was originally built sufficiently strong to withstand the pressure of ice, or whether the directors, or any persons in authority, were aware of its unsafe condition. It was the duty of the coroner, in that instance, to make careful inquiry regarding all these matters; and if the jury had then returned a verdict censuring any party, it was also his duty to arrest them on a charge of manslaughter, since no one can, with impunity, endanger the life of another, through gross ignorance or criminal negligence.

For instance, administering to a child a dangerous quantity of spirituous liquor, heedlessly or in brutal sport, is manslaughter, if death be caused thereby. Or if the driver of a carriage be racing with another carriage and a person be consequently killed, it is manslaughter on the part of the reckless driver. In such cases, of almost daily occurrence in this city, a verdict of fact, merely, is generally rendered; or if the jury censure any person he is seldom, if ever, arrested by the coroner. It is a subject of frequent discussion, whether the proceedings of the coroner's inquest are of the nature of those which are conducted in ordinary courts of justice, or whether, from the peculiar nature of the inquiry, they are not more nearly allied to the investigations before a Grand Jury. "The former is a public

notoriously intemperate, while in a fit of gross intoxication, and the verdict was as follows: "The jury find that the child came to its death from suffocation by its mother lying upon it, while in a state of intoxication; but, in consequence of her previous good character, the jury acquit her of all blame, and advise her to keep temperate for the future."

tribunal, the latter a private one; but as the coroner's inquiry frequently leads to accusation, it is advisable, if not necessary, occasionally to conduct it in secret, lest a suspected party, being informed of the proof arising against him, eludes justice by flight, or by tampering with the witnesses." "Cases may also occur in which privacy is necessary for the sake of decency." "Even in cases where absolute secrecy is not required, the expulsion of particular individuals may be necessary and proper."

"Of this the coroner is evidently the best prepared to judge, and it is also manifest that the possession of such a power is necessary to him for the due administration of justice; for it is impossible that the coroner's court can be conducted with the effect that justice demands, if the coroner have not entire control over the persons present, and the power of admission and exclusion according to his own discretion." It has, in fact, been decided on several occasions, that the coroner has the right to exclude, not only particular individuals, but the public generally. He may even forcibly expel a contumacious spectator from the room in which the inquest is held. Nevertheless, it is obvious that, as in most cases, publicity assists the investigation of truth and the detection of guilt, this power ought not to be exercised without just cause and due consideration. Besides, it is not essential—even if requisite that the inquest should be *commenced* in secret—that it should be concluded in the same manner, as the coroner has the undoubted right to arrest all suspected persons and detain them until the jury either acquit or find a verdict against them. The indiscreet exercise by the coroner of the power of holding a secret court, has lately been exemplified in the abortion case, in Houston street, of this city. The investigation was commenced in secret and concluded in secret; so that those who could have given information on the subject, were not aware that the coroner had the case under consideration, until the verdict was rendered. After eight days of this secret investigation, the affair remained an impenetrable mystery, and it was only by the publication of the proceedings in the daily papers that the body of the woman was identified, and testimony obtained by a Justice of the Peace, which would undoubtedly have led to the conviction of the accused, had she not taken advantage of the delay to elude justice by flight.—*N. Y. Am. Med. Monthly.*

CONCEALMENT OF PREGNANCY.—The High Court of Justiciary of Edinburgh have decided that the disclosure of pregnancy to the reputed father is a sufficient answer to the charge of concealment.

FEMALE PHYSICIANS.—Messrs. Editors : I have often wished, when reading the gross perversions of the truth which have been industriously brought before the public by interested persons, that the actual facts in regard to this subject might be so presented as to disabuse those who have been induced to credit the assertions so frequently and boldly made.

The proposition that women, as a sex, cannot practice medicine—that their weak physical organization renders them unfit for such duties and exposures—that their *physiological condition, during a portion of every month*, disqualifies them for such grave responsibilities—is too nearly self evident to require argument. I therefore limit myself to a statement of the facts as regards midwifery alone, for the practice of which it has been especially claimed that they are competent.

It is asserted, in the first place, by the advocates of this claim, that were the habits of society less artificial, the process of child-bearing would be as easy and safe as in wild animals, calling for no intervention of science and skill. In the second place, they affirm, that in Europe the practice of midwifery is almost exclusively in the hands of females. Lastly, and as their weightiest argument, they declare that physicians are licentious, and that morality and delicacy require that they should be superseded.

But as respects savage nations, as well as in regard to domestic animals, we have abundant proof that no such immunity from pain and danger exists. On this point I beg leave to quote a small portion of the testimony lately collected by a distinguished English author (Robertson), who says : “A variety of recent valuable evidence (furnished chiefly in casual hints and allusions, the most unexceptionable kind of evidence) leads to a very different conclusion. So far is parturition from being *easy, expeditious and safe* in every instance among barbarians, we have reason for thinking that *difficult* labors are as numerous with them as with us. In exemption from the usual causes of impeded labor, requiring the aid of science for the safe delivery of a patient, there is either no difference at all, or, if there be, it will be found in the greater exemption, from such causes, of women in a state of civilization. Although much minute and specific information on this point is not to be expected, I have collected a number of remarks more or less bearing upon it. Long mentions, incidentally, the fact of a young woman of the Rat Nation being in labor a day and a night without uttering a groan, the force of example acting so powerfully on her pride as not to allow her to express the pain she felt. A similar fact is stated in the

voyage of Clarke and Lewis up the Missouri. Hearne, in his *Journal of an Expedition to the Northern Ocean*, casually says, "Here we were detained two days, owing to one of our women being taken in labor. She was not delivered till she had suffered for nearly fifty-two hours." MacKenzie incidentally notices that on a particular time the Indian hunter attached to the party returned, after a temporary absence, accompanied by his wife, leaving behind his mother-in-law, in a helpless state, with three children, *and in labor with a fourth*. It came out that she had been left "in a state of great danger." Capt. Keating states respecting the Potawatomis, a tribe with which he had associated for some time, and concerning whose manners his party gained much curious information, that labor was seldom fatal, but that many instances had occurred in which the child was so long *in being born*, that it was putrid when expelled. The same writer informs us that in answer to inquiries concerning the usual duration of labor in a tribe of Indians called Sauks, he was told that the pains of labor continued, in some instances, as long as four days. Among the Dacotas, the same party learned that parturition, in some cases, lasted from two to four days. We have another incidental notice of labor in an Indian in Franklin's *Overland Journal*. A Chippawyan woman fell in labor, in the woods, of her first child; and, on the third day after, died. In Krantz's account of the manners of the Greenlanders there occurs an allusion to parturition. Among others, those, it appears, are to find entrance to heaven who have died in child-birth. Messrs. Ellis and Bourne, who resided a great many years as missionaries in the South Sea Islands, have furnished me with valuable information concerning parturition as it occurs in those islands. Mr. Ellis says: "Protracted and dangerous labors have generally been occasioned by mal-presentations." Mr. Bourne says: "The missionaries have saved many in difficult labors, who would otherwise have died." Long, the able historian of Jamaica, writes, in allusion to parturition among the slaves, that many children are annually destroyed, as well as their mothers, in the hands of the negro midwives. A writer in the *Encyclopædia Britannica* has shown that for a long period midwifery has been practiced in China by a set of men destined to the purpose by order of government. These men are called in whenever a woman has been above a certain number of hours in labor, and employ a mechanical contrivance for completing the delivery. The Chinese government, it is said, was led to make this provision in consequence of a representation that annually many women died undelivered, and that in a majority of cases

the cause of obstruction might have been removed by simple mechanical expedients.

It is needless to add further evidence. We have seen that rude nations acknowledge the necessity for more or less assistance in the act of accouchement. This is further proved by the rude expedients resorted to by such nations to accomplish delivery. The circular fillet around the abdomen, tightened with great force by a dozen assistants, with the view of *forcing out the child*; the supension of the woman by the heels, with the hope of altering the position of the infant, as practised among the Indian and negroes, are examples of these.

As civilization advances, we find a far higher regard for all which concerns the welfare and safety of woman. It was this exalted regard which at last demanded the transfer of the responsibilities of the lying-in chamber from the midwife to the educated accoucheur. The *results* of this change were, a diminution of the mortality incident to child-birth, in the course of half a century, *to half its former amount*. The *reasons* for it have been already partially alluded to; but one other of them is worth mentioning, as it furnishes a complete contradiction to the theories of the would-be reformers, who assert that women under such circumstances need more sympathy and gentleness than they receive from physicians of the other sex. This reason was, the *notorious harshness of the midwives*. With all the desire to display their importance and their skill which belongs to half-cultivated minds, they sacrificed the comfort and even the safety of their patient to the endeavor to make a brilliant impression of their own ability. This is well known as regards those of Scotland and England at the present day. In regard to those of France, the writer was informed at Paris, that one reason why the midwives were not employed (except as a measure of economy by the poorer classes), was their extreme roughness, not to say cruelty, towards their patients. The able author I have already cited says, of those of England; "It is scarcely credible to what an extent they carry their interference in every stage of labor. It is no part of their system to trust to the unaided powers of nature." Those who have had much opportunity to observe the harshness and neglect which many patients endure from their nurses, will be quite prepared to receive these statements as unexaggerated.

But we are told, in the second place, that in Europe, and especially in France and Germany, the practice of midwifery is almost the exclusive province of females. I submit the following facts, obtained by personal

observation. The government does all in its power to render the "sage femmes" or midwives, as far as they can be, competent, by providing for them a system of instruction under the direction of the faculty of medicine, and by requiring them to pass two distinct examinations before they are permitted to practice. But, even after such qualification (far superior to anything dreamed of in this country), they have been found so unskilful that they are forbidden, by law, to continue in charge of a difficult case, or to apply instruments, without calling in a physician. Even the eminent midwives who have the superintendence of the *Maternité* and the other large lying-in hospital at Paris, with their experience of thousands of cases, do not have the responsibility of the management of difficult labors. The physician who has charge of the hospital, or if he cannot be found, his substitute, is sent for. If neither of them can be found, notice is left at their houses; but, if delay be inadmissible, the house physician, not the chief midwife, takes charge of the case. Educated as we have seen, the midwives enter upon the discharge of the duties of practice, but not to be welcomed and patronized by the delicate and refined portion of their sex. In Paris, some find employment among the lower classes; others sustain themselves by keeping houses for accouchement, of which the signs may be noticed in all the less respectable quarters of the city. These houses afford a cheap resource for the wives of such small tradesmen as find their apartments at home too limited for their comfort during confinement, as well as for a large class who desire secrecy. Here a young girl, not a wife, becomes a mother; and the widow hides the consequences of her "indiscretion." Hence, perhaps, the child is sent to the basket of the Foundling Hospital, very probably to fall a victim to its want of maternal care; and the mother, having paid her forty francs for the accouchement and the nine days allotted her, returns to her position in society. In the rural districts, as in Great Britain, some midwives obtain a partial support in the small hamlets which are too far from larger places to allow of the services of a physician being readily procured for such occasions.

Many of equivocal reputation occupy the ranks of the midwives, who, having pursued an improvident career as *grisettes*, find themselves, at middle age, with no resource so convenient as the vocation of the sage femme. That such persons should be unscrupulous in practicing the illegitimate arts of their calling, as well as its honorable duties, need surprise no one. In Great Britain the education of the midwives is less methodical; but they are similarly sustained, by the lower classes only, not as a

matter of choice, but of economy. The competence of some may be judged of from a case lately brought before the London courts, where a midwife (who had been a pupil at a London lying-in hospital), after the patient had been delivered, dragged the womb itself out of the body, and then, supposing that this organ was something which ought to be removed, *tore it away from the woman*, causing her speedy death.

If, then, midwives have still a recognized existence in European countries, they do not owe it to any superior delicacy or higher morality; but, as I have shown, to circumstances inseparable from a poor or sparsely scattered population. These circumstances do not exist in even the most thinly-settled portions of New England, and the more valuable services of the physician have been within the reach of all, no matter how poor or how distant.

But the public have been told, *not by ladies*, but by men whose grossly indelicate works do not go to prove *them* the fittest judges, that the confidence of the sex is abused by physicians, and that to employ them is an offence against the higher sentiments of woman's nature. Every pure-minded lady denies the libel, as regards her trusted medical adviser and the profession at large, as well as herself. Incapable of the indelicacy of thinking and acting as if, in any matters concerning the health of herself and her children, there could be any question of sex, she describes to her physician, without hesitation or reserve, the physiological or pathological phenomena in regard to which she solicits his advice; knowing that he receives her confidence in the same spirit. There may be exceptions in morality among physicians; but where can an equal number be found, in any class of society, whose conduct is *as irreproachable*. No objection is made to the admission of clergymen to intimate and confidential relations with the other sex, although these relations take place under circumstances infinitely more likely to lead into temptation, and though the community has witnessed more instances of exposure of misconduct on the part of the clerical than of the medical profession.

I trust I have fully proved, that so far from being a benefit to society, so far from enhancing the purity and delicacy of female character, it would be a misfortune to both that any retrograde step should be taken, as regards the qualifications and character of the medical attendant. The duties of the accoucheur are not limited to the service rendered on a single occasion. He must see that mother and child are doing well, and take every precaution to avert any germ of future disease. Is he, with his in-

timate knowledge of the whole constitution, his skill acquired by years of thought and culture, any too competent for these important responsibilities?

Some wise and worthy men have been anxious that the experiment should be tried; some clergymen have been persuaded to give an opinion on a question of which they are most unqualified judges; but the public have given but a chilling support to the languishing experiments which they have been forced to witness in the sham education of females. Nor will the occurrence, within a few weeks of each other, and within a short distance of Boston, of two cases, where the gross ignorance of two of the professedly educated females, cost the life of one patient, and made another the subject of an infirmity which renders life a burden, be likely to exalt the plan in public favor. But like its cœval Bloomerism, the scheme has already received its deserts. It contains within itself the elements of failure; for, as one of its advocates remarked, "the girls don't like to dissect." They did not seem to like, either, to devote more than three months to a course of medical education.

I have offered these too long remarks, Messrs. Editors, although you have so ably disposed of part of the question in your No. of the 1st Nov. last, in the hope that the statement of facts may enable some in the profession to refute the assertions which have been so freely made, and to give a satisfactory answer to the appeal which is now and then made to them for the truth in regard to the merits of this question.—*Communicated for the Boston Medical and Surgical Journal.*

EGG OF THE EPYORNIS.—At a recent meeting of the Academy of Sciences of Paris, M. Geoffroy St. Hilaire, the naturalist, presented another egg of the Epyornis, or gigantic bird of Madagascar; but, though not larger than those which some months ago were shown to the Academy, it was smoother, almost polished, and also marked by lines. The natives of Madagascar say the bird still exists in the interior of the island; M. St. Hilaire, however, thinks the species extinct. The inhabitants imagine the bird "can easily carry off an ox in its talons."—*Lancet.*

M. PAUL DUBOIS.—This distinguished obstetrician has been promoted to the grade of Commander of the Legion of Honor, by Imperial decree, dated March 16, on the occasion of the happy deliverance of the Empress, on that day, of a prince.—*Lancet.*

ILLUSTRATION OF QUACKERY.—The following, which we cut from one of the daily papers, may amuse our readers :

Oliver S. Woodman vs. the Steamship Crescent City.—This suit was brought to recover the value, alleged to be \$480, of a barrel of “ Magnetic Tincture, or Minor’s Magical Fever Cure,” alleged by the libellant to have been shipped on board the steamer at New Orleans, and to have been destroyed while being discharged at New York. The bill of lading specified the barrel as “ one barrel liquid,” on freight, as customary, and, at the foot of the bill, the clause, “ contents unknown.” It was proved that the freighting of liquids from New Orleans to New York has been confined almost exclusively to whisky, alcohol and molasses, in barrels; that the customary freight on whisky was \$1 95 per barrel, and that it was worth about \$16 per barrel, and that freight was universally charged, on this line, in proportion to the worth of the contents of the casks, and that such casks were always secured by strong and marked hooping, which this was not; and that enough of the contents remained in the cask when stove, to be tested and drank, and was pronounced, by the witnesses who drank it, to be whisky. Held by the Court: That the libellant was bound in good faith to disclose to the ship the character and value of the article shipped. That on the bill of lading, the undertaking of the ship covers no more than the value of a barrel of ordinary whisky. That the article was a nostrum of quack properties, and there is no satisfactory evidence that it was of any intrinsic or remarkable value above that of common whisky. Decreed, that the libellant recover \$15, the value of a barrel of whisky, without costs. For libellant, Messrs. Emerson and Pritchard; for claimant, Messrs. Clark and Rapallo.

PARTURITION OF THE EMPRESS OF THE FRENCH.—No authentic account of the parturition of the Empress of the French has yet been published. We gather, generally, that the labor was somewhat protracted, the infant much above the average size, and that the forceps had to be used. It is stated in the public journals that the Empress did not take chloroform, but we have reason to know that this is not correct. After suffering for a considerable period, she begged to have chloroform administered to her; but M. Dubois, having a strong objection to its employment, only consented to the inhalation of a small quantity. The result, however, was anything but beneficial, great excitement and some delirium ensuing. The chloroform was immediately discontinued, but it was some

little time before its injurious effects had entirely subsided. As the labor did not progress satisfactorily, and as the expulsive pains were evidently insufficient to effect delivery, it was determined, after a consultation, to apply the long forceps. These were used with great dexterity by M. Dubois, with the happy result of completing the labor with safety to the mother and child. The application of the forceps was attended with the production of a bruise on the face of the infant, but the injury is not at all serious, and is gradually but sensibly diminishing. The "milk fever" supervening has been of the ordinary character of this affection in mothers not nursing their children, and has been productive of no alarm. Happily, all is now well with both the Imperial patients.—*Lancet*.

BIRTH OF FOUR CHILDREN.—Mrs. Sherratt, wife of John Sherratt, porter, of Newton street, Brook street, Chorlton-upon-Medlock, England, has been lately delivered by Mr. A. W. Close, M. R. C. S., of four living children, three girls and one boy.—*Lancet*.

GLYCERINE SOAP.—A new description of glycerine soap has lately been produced, which seems likely to prove of value in the treatment of many cutaneous diseases, and which is useful for persons having delicate skins, or for young children. The following results have been obtained from its analysis :

Fatty and resinous acids,	71·2
Soda,	6·2
Sulphuric acid,	·4
Chlorine,	·25
Glycerine,	5·45
Water,	16·5

100·000

The peculiar features of this soap, as indicated by the analysis, are, the presence of a considerable quantity of glycerine, the almost entire absence of common salt or other saline matter, and the reduction of the alkali to the smallest amount available for the formation of a perfect soap.—*Lancet*.

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LECTURES ON GENERAL PHYSIOLOGY.

By Professor CLAUDE BERNARD.

From Notes by ANTHONY PENISTON, M. D.

Man is an animal which inhabits the earth; all investigations into his origin, or period of advent, are wrapped in impenetrable obscurity, which history itself has only contributed to increase. Forsaking then, as unscientific, all conjectures on the cause or object of his creation, and only considering man in relation to the objects which surround him, we find that the latter may be divided into three great classes, viz :

The mineral kingdom;

The vegetable kingdom;

The animal kingdom.

In order to characterize those different objects and to distinguish them one from another by their peculiar attributes, Linneus said :

*“Mineralia crescunt, vegetalia crescunt et vivunt,
Animalia, crescunt, vivunt et sentiunt.”*

This aphorism may be modified in the following manner: Mineralia, esse; vegetalia, vivere; animalia, sentire; homo, intelligere.

As physiologists, however, we must adopt the old division proposed by Aristotle, and consider all created things as made up of two great classes, viz : those which have life, and those which have not. The first are subject to physiological rules, the latter to physical and chemical laws.

Living beings, both animal and vegetable, are innumerable; indeed, animals are found everywhere—in the air, in water, in the depth of the

earth, and even in the interior of other animals, comprehending the important class of parasites.

Physiology has nothing to do with the classification of these different orders of living things; its sole consideration being that of ascertaining the laws according to which any given animal continues to exist. Thus, at the very beginning of our subject, we might ask, what is life? We all feel or understand the meaning of this term, yet a correct definition can scarcely be given.

The following, which is that of the encyclopædia, is, perhaps, the simplest that has been offered: "Life is the opposite of death."

Bichat's definition, which resembles this in some degree, is false in one respect. He said, "life is that assemblage of functions which resists death;" so that he considers life as nothing more than a constant struggle against death, each living thing being made up of two principles, one tending to preserve, the other to destroy the individual. Now, this struggle does not really exist; for death is that state which supervenes when the manifestations of life are at an end.

Much has been said as to the external characteristics of living and inanimate beings. The difference of form has been insisted on; thus, living beings have, in general, rounded surfaces, and more or less irregular lines, while to minerals, on the contrary, belong regular figures and geometrical proportions; but this rule is far from being universally applicable; thus, air and water, which belong to the class of inanimate things, have no form whatsoever. There is, however, one attribute which is peculiar to living beings, viz: that they are made up of cells; on the other hand, minerals are eternal and exist through all time, whereas living beings are essentially transient, having a beginning and an end, each individual being nothing more than a link in that perpetual chain by which this mysterious agent, life, is transmitted through countless generations.

We say that minerals are eternal, but we do not mean that they are immutable; for if the conditions of the surrounding media change, the mineral may alter its form, though it still continues to exist: Thus, there are several manifestations of activity in minerals; but it is evident that those changes are independent of the subject matter which is acted upon, being caused by certain chemical or physical forces, such as heat, light, electricity, etc.

On the contrary, animals have a cause of activity within themselves, according to which some portion of their body is in constant motion, and this is what constitutes life.

When we examine among living animals, the nature of this innate active principle, we find that two conditions are necessary for its manifestation. In the first place, an organization endowed with the power of life, and in the second place, a proper medium for the exercise of those faculties, so that no organization contains within itself all the requisites of life; it must derive many of these from the surrounding medium, and life may be said to be the result of the contact of an organized being with the external world. In conformity with this idea Cuvier compared life to the flame of a candle, which required two things, the combustible material, and the oxygen to support combustion; but he forgot that a spark is necessary to light the flame. And so among organized beings, life is the spark derived from the Creator.

Here again, we touch on the question of the great first cause; but in physiology, we must never ask why, but how things take place.

Among organized beings we find that a cell is the origin of life; but why is it that this cell, in the course of its developement becomes one animal instead of another? This is what we may never know. Yet, we can study the development and progress of this cell from the earliest stages, when it becomes endowed with that vital power by which it accumulates materials to produce either some inferior animal in the scale of beings, or perhaps man himself, the summit of creation. We must, therefore, lay down two questions:

First. What is the organism?

Second. What is the medium?

The organism is that centre which takes in certain objects of the surrounding medium by virtue of a continual current inwards and outwards, constituting a sort of whirlpool, by means of which nutrition and consequently life is kept up. Though organisms are infinitely varied, they always present the same general phenomenon, this incessant exchange from the outside to the inside, and vice versa, as long as life remains. In ancient times, it was said that our whole system was renewed every seven years, but it certainly must take place in much less time than that, and yet during this molecular change, the external type ever remains the same.

As to the surrounding medium it varies in many ways—air, earth and water, being each inhabited by different animals, to say nothing of the parasites or animals living within other animals. Under a still broader point of view, we may say that all substances which are susceptible of assimilation constitute the medium of an animal; thus oxygen which pene-

trates our tissues, and the vegetables which we eat, enter alike in the same category. Now the vegetable kingdom draws many of its constituent elements from the mineral world, and afterwards becomes the food of different animals, so that a perpetual interchange is kept up, most of the substances being returned to their original purposes. Moreover, many animals live on other animals, the carnivorous on the herbivorous. But we must not imagine that vegetables furnish to animals all the different organic elements found in the latter; for we find in these, different compounds which are peculiar to the animal tissues. They may likewise produce, independently of the vegetable kingdom, certain principles which are also met with in plants; such, for instance, is sugar in the liver.

As, however, a consideration of all the properties of organized beings would lead us too far, we must define our subject and limit its pergramine.

So that we shall say that Physiology has for its object the knowledge of life and the mechanism by which life is kept up. This study presupposes a knowledge of anatomy, or the structure of the organism, for anatomy has for its aim the science of the human body in a state of rest: endow the same body with life and motion, and it becomes the province of the physiologist. Such being the domain of the latter, he can only ascertain by experiment the relation between the organism and the different media. In the first place, we can readily imagine that a perfect harmony must exist between these two agents, each possessing certain properties, which oscillate within definite limits; and if there be any opposition between the medium and the organism, life must necessarily cease. On the surface of our globe, we find great diversities of climate, from the frigid to the torrid zone; and such is the influence of temperature, that we find totally different races inhabiting respectively each region. That to climate are owing many of these diversities in our own species there can scarcely be a doubt, and these effects are still more marked on the other animals, and on the vegetable kingdom. Even in the same climate, the change of season is productive of the most important consequences, both on animals and vegetables. The organism itself does not present invariably the same vital phenomena. From its birth to its death, there are numerous oscillations in every living being, thus there is a period of growth, of maturity and of decline: then again there is the state of health and that of disease: and lastly, that of sleep, which is a suspension of some functions and of certain relations with the external world. Though harmony must necessarily exist between the organism and the external world, yet the former is the passive

agent which adapts itself in a great measure to those external influences.

Lamarek, in his great work on natural history, was at fault in his application of this principle, when he said that external causes can alter completely the different species of animals. According to him, the different varieties of cranes have long legs, because they are required to wade in the water in order to seek their food, and that this necessity caused their legs to lengthen. But we do not admit this: we believe that the different species are eternal; that such as they were in the beginning, so are they now. Geology affords us abundant proof of this fact, for though some species are extinct, yet others are still the same as when they left their foot prints on the sand in the early ages of the world.

Heat also exercises a great influence on organized things, both animal and vegetable. Every one knows that in tropical climates plants have the most luxuriant growth, and trees attain gigantic proportions; while in cold climates plants diminish in size, and towards the limits of eternal snow, vegetable life becomes entirely extinct, though some animals yet inhabit those dreary regions. Baron Humboldt, during his travels, observed this fact in many places, on the Andes and the Alps. In the valleys at the foot of the mountains, he saw that the different plants were fully developed, and vegetation strong and hardy; but as he ascended the mountain, the same plants dwindled in size, became poor and stunted and finally disappeared.

Thus we have ascertained that a high temperature is favorable to vegetation, but that is only true within certain limits, for beyond a certain point both animal and vegetable life must cease to live. Yet we know that we can brave with impunity a temperature much below zero; in the same way individuals have been known to enter an oven heated above 108° , but in either case the temperature of the blood remains invariable, or very nearly so, not being susceptible of more than very slight deviations from the natural standard, which, among the mammiferous animals, is about 102° Fahrenheit. The temperature of birds is greater than that of the mammiferous, by six or seven degrees, averaging between 108 and 110° .

As to cold blooded animals, their temperature is that of the surrounding atmosphere, but even with them, life can only be maintained within the same extreme limits of temperature. It has often been said that snakes and other reptiles have returned to life after having been frozen, but these assertions have never been satisfactorily proved. If an animal be put into a stove heated to 120° , it will die in a very short time; which will be as

soon as the blood becomes heated a few degrees above the natural standard. It has been ascertained that persons can stand an elevated temperature in a dry atmosphere, much better than in a damp atmosphere. Certain persons have been known to enter ovens heated to 212° , but they certainly could not withstand a bath in water of the same temperature.

Those plants which are found in the Polar regions, seem endowed with such little life, that they may be said to have a species of latent vegetation. Plants like animals differ in their power of resisting extremes of temperature; so that we find some only thriving in cold climates and others in tropical regions.

Different birds, which inhabit very cold climates in summer, migrate at the approach of winter to more southern latitudes, but mammiferous animals are not known to do any thing of the kind; the consequence of which is, that if the climate becomes too cold, the entire race may be destroyed. This accounts for the disappearance from the surface of the earth of several extinct species of animals, such as the mammoth and mastodon, of which we have the fossil remains in various parts of the globe. Other animals escape the fatal effects of cold weather by falling into a peculiar species of lethargic slumber, which lasts during the greater part of the winter, these are called the hibernating animals, among which are the marmot, and various others belonging to the order of rodentia. These animals sleep during the coldest winters, and remain several months without food of any kind; and it has been ascertained that if they were exposed to the same temperature while awake, they would inevitably perish.

This lethargic slumber seems also to alter very considerably their aptitude for absorbing certain poisonous gases, such as carburetted hydrogen, carbonic acid, etc.; and they seem but little affected by these substances, whereas in the ordinary state death very soon ensues. Mr. Regnault has also proved by the most convincing experiments, that these animals absorb much less oxygen when they are in this state than at other times.

Many attempts have been made to explain this torpid state which is peculiar to hibernating animals. It has been said that a low temperature was not the cause of their lethargy, and as a proof of this it was alleged that the marmot does not always go to sleep at the coldest time, and that they sometimes wake up while the weather is much colder than when they fell asleep; that their slumber comes on at regular and stated times, and ceases in like manner: and lastly, that as these animals have a daily slumber, so have they an annual sleep, which happens to be in the winter by a

mere coincidence. To these arguments we can answer First. That these animals cannot live at a temperature of 18° below zero when awake, but that they experience no ill effects when asleep. In the second place, that a marmot can be made to sleep in the summer time by exposing it to a low artificial temperature, and that they wake up when put in a warm room in winter. We know, moreover, that the influence of habit is such, when prolonged from generation to generation, that the whole species may become liable to its influence, and that the marmots, having acquired the habit of going to sleep at a certain time, may still do so, though the winter happens to be milder or later than usual.

In the same way with us, night does not cause us to sleep, but the necessity of it is felt from habit when night comes.

We may also draw our proofs from the vegetable kingdom. Thus gardeners know full well that seeds obtained from Southern climates come up quicker than those which were gathered in higher latitudes. For having acquired the habit of coming up at a time which is usual in the former place, they retain this property though transplanted to other climates. In the same way when plants are brought from the Southern hemisphere, where they bear blossoms and fruit in the summer time, they still continue to bloom at the same annual period, though corresponding to the winter of the Northern hemisphere. These examples show us the influence exercised by the surrounding medium, or the organization of plants and animals.

Another condition equally necessary for the phenomena of life, is water or moisture. When we attempt to expel the liquids from any animal, it soon dies, and moreover the properties of the tissues are entirely changed. Thus the cornea, which is transparent, becomes opaque. Even in the most solid tissues, there is always 80 per cent. of water. And so it is with seeds; for the process of germination requires moisture as an indispensable requisite, and those plants which have been dried never return to life.

As an exception to this rule, however, it has been said that certain inferior orders of animals, and among others Spallanzani's rotiferæ, may be so dried as to resemble the dust in the gutters on the house-tops, but that they return to life and motion as soon as they come in contact with water.

Light is another of the requisites of organic life; and it would seem to be the more necessary in proportion—as the organization is less perfect:—so that light is more necessary to plants than to animals; and the latter seem to require it more when young than when fully developed.

To plants, light is almost indispensable, and their nutrition and growth seem directly dependent upon it: thus we see that plants growing in the shade look sickly and shriveled. The action of light seems necessary for the respiration of plants:—if we put a vegetable under a bell glass filled with water, and expose it to the rays of the sun, we shall immediately see bubbles of gas rising to the surface, whereas, if it be left in obscurity no such phenomenon takes place. It appears that the action of light on the plant produces a decomposition of the carbonic acid contained in the water, the vegetable absorbing the carbon and the oxygen is disengaged. If the water be previously boiled, as this process drives away the carbonic acid, the phenomenon will not be produced; but if we use water charged with carbonic acid, the action will be much more violent. Plants have a tendency to seek the light, and will generally grow in the direction whence it comes. Thus if we put a shrub in a cellar where the light only penetrates on one side, the plant will develop itself in that direction. Yet there seems to be an exception to this rule, viz., that of mushrooms, which seem to grow better in the shade, and are accordingly cultivated in caves where scarcely any light penetrates.

We must next examine the alimentary conditions which are necessary for the life of plants and organized beings in general. That nutrition exercises a powerful influence on living beings, no one doubts, and it may exaggerate or diminish certain physical properties. That curious insect, the bee, furnishes a most remarkable instance of the kind, as was shown by Hubert, whose experiments on the subject are exceedingly interesting. Thus it has been ascertained that bees owe the difference in sexual development to the kind of nourishment which they receive while in the state of larvæ. These little animals are made up of three classes, the neutrals or laboring bees, the drones or males, and the queen bee, whose sole function seems to be the propagation of the species. If the queen be taken away from a hive, the neutrals will immediately set to work to make another one, and for this purpose they select one of the larvæ, and the future queen is fed with a peculiar food, which is different from that given to the other larvæ; the consequence of this is, that the one they select attains a much greater size and becomes the queen. It seems that if any parcels of the royal food falls among some of the neighboring cells, these larvæ will be much larger than common, though they may not quite reach the stature of a fully developed queen.

We must, therefore, understand by the word nutrition that fundamental

property, appertaining both to vegetables and animals, by virtue of which each molecule draws from the surrounding medium its own constituent elements. So that whatever be the molecular form, as long as nutrition is kept up, it still preserves its shape, owing to that elective property, by which it incessantly repairs the incessant waste.

Even in Chemistry, we observe certain phenomena somewhat analagous to this. Let us take, for instance, two crystals, one of sulphate of soda, the other of nitrate of potash, differing from each other by their form and chemical properties, yet possessing in common the property of increasing in size by the attraction of similar particles. If we put these two crystals in a solution containing both sulphate of soda and nitrate of potash, the two crystals will grow rapidly, each one attracting the substance which is similar to itself. The very lowest orders of organized things enjoy a property which is similar to these, and amid innumerable elements select those which are proper for their nutrition and growth. As we rise in the scale, and observe the most complicated organisms, we find that each tissue subsists in the same way; fibrine attracts fibrine, nervous matter, its neurilemma; the bones, the phosphates and calcareous matters, etc. So that nutrition is really a fundamental property; when it ceases all others must cease likewise.

We have just said that certain chemical substances possess a species of elective property, by which they attract similar particles in a fluid state, but the manifestations of life are characterized by other phenomena which are not possessed by the crystal. Take, for instance, a muscular fibre, which is incessantly nourished by the surrounding medium, but at the same time it is also continually losing a certain portion of its substance; so that nutrition must ever be repairing the waste of the tissues; and it has been proved that in 24 hours every individual loses and gains 1-10th of his total weight. Nutrition is in direct proportion with the activity of the animal and its organization; so that among cold blooded animals all loss of substance is slow and gradual; and we observe that even after death the different tissues preserve their properties much longer than among mammiferous animals. Thus electricity will produce contraction in the muscles of the frog for several days; whereas in the former it ceases after a few hours.

Each molecule draws from the surrounding medium the elements of which it is constituted. Among animals the blood is the vehicle which carries to every tissue the materials for nutrition; for as it is impossible

that every molecule can be in contact with the external world, nature has devised means to obviate this difficulty, and the circulation accomplishes this purpose, for it carries to every solid particle the material it requires. So that in fact the solids alone can be said, strictly speaking, to be endowed with life, for the fluids merely contain the materials for their nutrition, or the excrementitious matters which have been thrown off by the wear and tear of the organic functions. The blood is the nutritive fluid which carries to each molecule its necessary elements : thus it contains air, and a variety of substances derived from digestion. From these considerations, it follows that nutrition is that organic affinity by which each molecule attracts certain particles which become incorporated with itself ; it is, therefore, a vital function and differs essentially from all purely chemical laws. Each animal varies in the nature and quality of its food ; but all agree in requiring some nutritive element, in order to maintain life ; yet some reptiles have extraordinary powers of endurance under the most complete abstinence. Still there is necessarily a limit to this, after which death ensues. We must, therefore, reject as fabulous those stories about frogs being found alive, after having been embedded in solid blocks of stone, where they are supposed to have remained during centuries, without any species of food. The different cases of the kind, which are related, have always been deficient in scientific authority, and we know that the natural propensity to the marvellous has caused many assertions to be credited which were deficient in authenticity. There is no doubt, however, that these animals live a very long time with very little food, and experiments have proved that when embedded in porous substances, where some air and moisture could reach them, they have lived as much as four and five years. On the other hand, when enclosed in Plaster of Paris, where there is a perfect hermetical closure, they died in a very short time.

The next property which we must consider as one of the attributes of living things, is excitability. This is one of the lowest manifestations of life, and belongs to all organized things, both animal and vegetable. So that a molecule of living matter is excitable by external agents, but this property is ill-defined when existing alone. In the lowest orders of animal creation, we find certain gelatinous masses which appear endowed with life ; but which give no other evidences of it than the power of contraction—this appears to be the only function which they possess. They absorb the liquids which are necessary for their nourishment, and throw out those which have been used, but they manifest no spontaneous movements, and

the most careful examination reveals no traces of the nervous system. Lamarck calls irritability that contractile power which implies a certain degree of spontaneity, besides the mere property of reacting under the influence of external agents. There are two species of reactions, one caused by external causes, the other by an internal cause: the last species is called spontaneity. Some specimens of plants possess the former property, the latter is confined to animals, being in fact one of the distinguishing characteristics between them and the vegetable kingdom. Thus as we rise in the scale of beings, we find that spontaneity is the result of a new tissue, the nervous system; whereas irritability resides in the muscular tissue, though susceptible of being acted upon by the nervous system. That these two properties are distinct and independent of each other, may be shown by direct experiment. Thus we can take a leech, for instance, and by certain noxious substances, destroy the nervous power without abolishing contractility. For we know that some poisons have special properties by which their effects are confined to certain tissues, so that we may, by destroying one set of tissues at a time decompose an animal, if we may so speak, and suppress a portion of its organization without affecting the remaining parts. Thus the woorara poison, fabricated by the Indians of South America, is a substance of which the composition is unknown, though its effects have been well ascertained, and are perfectly specific in their nature. The poison is exceedingly violent when introduced into a wound, but innocuous if taken into the stomach; the reason of this is that it cannot be absorbed in the intestinal tube, whereas, if it enters the circulation through a wound, it pervades the whole economy, and completely destroys the nervous system. Its action seems entirely confined to the nervous tissue, for the muscles and secretory organs retain all their properties. By thus abstracting the nervous system, we abolish all spontaneity at the same time; yet the muscles retain the power of contraction, as the slightest electric current will show at once.

On the other hand there are poisons which act on the irritability of the muscle alone without affecting the nervous system. Nicotine, the active principle of tobacco, acts in this way; it destroys the contractile power of the muscle, but does not affect the nervous system; so that it abolishes irritability, and does not, in the least, diminish spontaneity; that is to say, the muscles cannot respond to the call of the nervous system. This, also, can be shown by direct experiment. Take, for instance, an animal, and tie all the arteries leading to one leg, after which, poison the animal with

nicotine: we shall find that wherever the circulation carried the poison, all contractile powers will be lost; but if the veins leading to the ligatured limb be touched with an electric current, though taken very high up, where they were in contact with the poison they will nevertheless react on the muscles of the ligatured extremity.

REPORT OF A CASE OF TABES MÉSSENERICA.

By THOMAS M. MATTHEWS, M. D., of Shelbyville, Texas.

Some time early in January last, I received a note from a gentleman of this county, who is a *retired* physician, requesting me to come and examine the lungs of a negro girl for him. Reaching his house, I found a well grown girl about seventeen years of age, who, though considerably emaciated, was still walking about. I made a careful examination and could distinguish nothing abnormal, save a slight roughness of the respiratory murmur, particularly on the right side. There was scarcely any cough, and no expectoration at that time. She complained of occasional pain in the left iliac region, extending sometimes across to the right. I suggested that the uterine functions were at fault, and that there was probably chronic inflammation of that organ, together with the left ovary. I was told, however, that the uterus was not at all at fault, which, as I afterwards found, was a mistake. I gave it as my opinion that the lungs were not, at that time, materially, if at all diseased. I heard no more of the case for some ten days, when I was again sent for and requested to take it in hand for treatment. I gave the girl, who was now in bed, a thorough examination, with but little better success than I had before done, except that, by close questioning, I found she was, and had been for three months, laboring under Amenorrhœa. She had, I was informed, fever during some time of every day, but without any regularity as to the time of its appearance. When I saw her the pulse was 80, soft and tolerably full—skin not exactly moist but pleasant—tongue clean, but rather anæmic in its appearance. I may here observe, once for all, that her pulse varied from 80 to 120, from the time I first saw her till her death, and that I often found it 120 without any abnormal heat of the skin, and when I knew she had been lying perfectly still for an hour or more. Every three or four weeks

there was an apparent effort on the part of nature to establish the menstrual discharge, indicated by an increase of fever, and also of the pain in the region of the uterus, which was of a dull, heavy character. I placed her on a pill of aloes, myrrh and ferri sulph: three times a day, and one of aloes, ipecac and ginger before dinner, and also ordered a warm hip bath at night, for three or four days before the paroxysm was expected.

I endeavored to break in upon the daily occurrence of the fever by the use of quinine in five grain doses, every two or three hours, but without success. I then made a pill of quinine, Quenésville's iron, piperine and ginger, one three times daily about half an hour before eating. These seemed to act pretty well for some three or four days, and I thought I would soon have my patient well; but I found that her stomach revolted at the medicine, and she could not therefore take it. I then directed to wait a few days, give her generous, but not too stimulating diet, and then continue the last pills. She continued taking them for nearly a week, when the stomach again rejected them. The skin had now become harsh on the legs and arms, and a tendency to general dryness, and I therefore gave quinine, opium and camphor in combination, and as, from the stools, the liver seemed torpid, I directed a grain of calomel and half a grain of pulv. Doveri thrice daily. The first three doses of this, set up a diarrhea, which I had considerable difficulty in arresting. I expressed my surprise at this result, and was informed that ever since she had been complaining, now about six months, mercurials had acted in that way; in fact they were contra-indicated. I continued the diaphoretic pill, and in addition, directed the body to be sponged with tepid water, and then rubbed dry with a coarse towel. I had, however, soon to abandon the diaphoretic—for, oftener than otherwise, she would throw it up, and I could see no good whatever result from it. I had now been treating the case some four or six weeks, and by watching it closely, came to the conclusion, by a negative diagnosis, that though there was no direct symptom of the presence of tubercles, yet I had a case of *Tabes Messenterica*, while in the lungs, there was what Vogel calls gray infiltration.

I now placed her upon Potassa Iodid., from three to five grains, and Hydrarg. Bichlor, one and a half grains, in Townsend's Sarsaparilla, three times a day, and added to the sponge bath, which was still continued, a table spoonful of Salæratu, and continued to give her generous diet. This seemed to be acting very well for a couple of weeks, when, from producing sick stomach and vomiting, it had to be discontinued. She now complained

of great and constant pain in the whole of the lower part of the abdomen, and I kept up a constant counter-irritation there, for two weeks, with blisters, with little or no benefit.

I had several physicians in consultation with me in the case, but no one of them recommended anything beyond what I had done, except the Tinc. Ferri Mur., which was tried, and found could not be taken. In fact, her stomach seemed to revolt at everything taken into it, if repeated three or four times, and her food had, on that account, to be continually changed from one article to another. It was owing to this fact that I did not give the cod liver oil a trial. The phosphate of lime was suggested by a friend in New Orleans, in a letter to me, but owing to my absence for a time from home, and other things, was never tried. For three months, I continued trying everything I thought could possibly do any good, and sometimes I thought the patient better, and sometimes worse, though gradually growing weaker, as I discovered. For a month all treatment was discontinued, except the bath and morphine, once during the day and once during the night, to allay "*pain in the side*," as she said, or a fit of coughing, which seemed to be purely hysterical. A few days before her death, her legs, feet and hands swelled and became dropsical, though not to any great extent. In this condition she died, on the 31st ult.

Post mortem appearances six hours after death — The brain, not seemingly affected during the sickness, was not examined. The lungs were completely filled with gray infiltration, which, as described by Vogel, p. 257, was assuming a granular appearance, and the whole of both lungs seemed to be studded with the tubercle. Softening had not begun at all, and, of course, there were no vomicae. The heart was entirely healthy, though the pericardium was completely full of a serous looking fluid. The liver was studded with tubercles, as were also the spleen, pancreas and kidneys. The stomach and bowels were healthy in appearance, as were the uterus, ovaries and bladder. There were very extensive adhesions of the intestines, throughout their whole length, with the peritoneum. These adhesions, the mesentery and its glands, seemed to be but a mass of tubercles, granular in form. The constant pain felt in the abdomen was doubtless caused by the inflammation which gave rise to the extensive adhesion presented in the examination. Had the lungs been examined late in the disease, the existence of tubercles there would doubtless have been pronounced; but, owing to the fact that there was no indication directing the attention to those organs, they were never examined, except as stated above.

The diarrhea, which is so constantly an attendant upon this disease, was in this case wholly absent, except when calomel or blue mass were given. Other cathartics did not have more than an ordinary tendency to produce it.

It may not be inappropriate to give a sketch of the history of the family of negroes to which this girl belonged, which, though short, is not a little singular.

The mother, a woman of some fifty years, is as healthy and hale a negro as one often sees. The father, I am told, now alive and seemingly in good health, was visited by the wife for thirteen sabbaths in succession, each, as she thought, for the last time, in an attack something similar in appearance to the one just described. He recovered. The oldest child of these parents was a boy. At about seven or eight years of age, up to which time he seemed perfectly healthy, he took cold in October, and after being sick for about five months, died; there was no post mortem examination of the body, but I am informed that he seemed to be affected very much like his sister. He coughed occasionally, but never expectorated to any amount. The next child was the girl whose case is above described. The next child is a boy. He, at eight years of age, was taken sick, and was confined to the bed for near six months, and his master informs me that during three weeks of the time he could never tell whether the boy was dead or alive, without a close examination, as he appeared to have no pulse. He too, had a hysterical cough, with no expectoration, save a whitish froth. This boy recovered, and is now as healthy a negro in appearance as I ever saw. The fourth child is also a boy. He was taken sick early in August. About the 15th October succeeding, his master, moving to this State from Alabama, and having him along, prepared for burying him on the road. He was seven weeks in reaching this place, and after crossing the Sabine river, the boy walked a little for the first time, and from that time rapidly recovered. He is now twelve or thirteen years of age and seemingly in good health. There are still two girls, both of whom have an occasional cough, but do not complain. There is this which seems remarkable about this family: They all seem to be obliged to have *one* long spell, which begins slowly and with not *one single* prominent symptom. They all have a cough which, to the observer, seems purely hysterical, and when sick, medicine seems to do no good whatever, or else is not at all tolerated. They all, with one exception, seem to be attacked about the same time of life.

There are still two left, who are as yet in tolerably good health, having only this cough. Is there any treatment which may be depended on as securing them against similar attacks?

LIGATURE OF THE FEMORAL ARTERY,

Rendered necessary by a Diffused Traumatic Aneurism of the Popliteal region.

By S. CHOPPIN, M. D., Prof. of Surgery N. O. School of Medicine; House Surgeon Charity Hospital.

The ligation of the femoral artery for popliteal aneurism, is an operation that has been so frequently performed, that surgeons seldom think of recording cases of this description, unless they present complications or sequelæ of unusual interest or severity. The following case is reported simply to prove the accuracy of a great principle in the treatment of wounded arteries, that is, "*that the ligature should be applied to both ends of the vessel, if it be cut completely across, or on both sides of the aperture in it, if it be only partially divided.*" The reason for this rule of practice is founded on physiological grounds as well as on practical experience. If the anastomoses of the part be very free, as in the arteries of the palm or fore-arm, bleeding may continue from the distal end, uninterrupted by the ligation on the proximal side of the wound. After the collateral circulation has been sufficiently established, bright scarlet blood will burst forth from the distal aperture. Experience has shown that it is in this way that secondary hemorrhage from wounded arteries commonly occurs, the blood coming from the distal and not from the proximal end of the vessel.

J. B. M * * *, ætat 22, was admitted into the Charity Hospital on the evening of the 24th of September. After a careful examination, a diffused traumatic aneurism of the popliteal region was diagnosed. The patient had received, three weeks before his admission into the hospital, a stab, which had penetrated the left thigh, just between the semi-membranosus and semi-tendinosus muscles, and severed the femoral artery, as it left its sheath, formed by the adductor magnus muscle. The external wound was still open, but presented appearances of healthy granulations. Patient had been for three weeks under the care of a physician in the city, who had used compression simply, by means of bandages, but to no advantage; for, during that time secondary hemorrhage occurred, at two different periods. He then advised him to go to the hospital. As there was no hemorrhage at the time of his admission, no operation was thought necessary, and the patient was placed quietly in bed. During the night, I was called in haste to the patient, and witnessed a furious hemorrhage bursting forth from the wound. I immediately plugged up the wound with my thumb, and ordered the necessary preparations to be made for the ligation of the artery. Fearing that, after cutting through the parts in-

filtrated with blood, in which the tissues could not readily be distinguished, the vessel, when reached, would be found to be too soft, pliable and granulating, I determined to ligate the femoral artery, just before it entered the sheath of the abductor magnus, so that sufficient space might intervene between the origin of the profunda and the point deligated, to admit of the formation of a proper coagulation in the vessel.

With the assistance of the resident students of the hospital, I proceeded to operate, and in a few minutes ligated the artery, which caused all hemorrhage to cease.

The patient being removed to his bed, bags of hot sand were placed around the affected limb. During the two first days after the operation, the patient complained of numbness, then of a tickling sensation in his left leg. On the third day, however, he expressed himself relieved of all pain; warmth had returned to the leg, and the patient seemed to be doing very well. Being compelled to absent myself from the city, I left the case at this stage in charge of one of my colleagues in the hospital.

On the 12th of the same month, that is, eight days after the operation, when all was progressing favorably, it seems a profuse hemorrhage occurred from the old wound. Upon an examination of the parts, the blood was seen to flow from the distal end of the vessel, showing that collateral circulation was already fully established. Compression was resorted to, and arrested all hemorrhage for the time being, but from the 12th to the 14th, three hemorrhages occurred, which placed the poor fellow's life in jeopardy. As a last resort, the wound and artery were plugged with compresses, saturated with the muriated tincture of iron. This application had the desired effect, and from that time no more hemorrhages occurred. The patient was, of course, left in a very debilitated condition, and it took all the power that nature possesses in a strong, young and robust individual, to snatch him from an apparently inevitable death.

The patient finally left the hospital having recovered both his strength and the use of his affected limb.

This case is instructive in two points of view. First, it teaches the practitioner that, when compression has failed, it should not be resorted to again, but the ligation of the artery performed. Secondly, it impresses strongly upon his mind that rule of practice long ago laid down by John Bell, and since so forcibly and copiously illustrated by Mr. Guthrie, viz: that both ends of a wounded artery be sought for, and tied in the wound itself, or that ligatures be placed on the cardiac and distal sides.

RIGIDITY OF OS UTERI, ETC.

By D. WARREN BRICKELL, M. D.

In the number of the Boston Medical and Surgical Journal for Feb. 7th, 1856, I read with pleasure a communication from Abraham Livezey, M. D., entitled "Observations on Rigidity of the Os Uteri and Perinæum." No point connected with the practice of obstetrics is of more interest or importance to the practitioner than this. Not only is the progress of labor retarded by the existence of this state of the os or perinæum, but in proportion to the duration of this condition of things, do the dangers to both mother and child increase. Prof. Simpson has demonstrated most satisfactorily that the danger in obstetric cases is in direct proportion to the duration of labor. As the number of hours increase, so do the chances of recovery diminish; and of those women who are delivered within the first hour after the accession of labor, the greater number recover.

Well may Dr. Livezey, then, withhold his assent to the doctrine of Meigs (and not Meigs alone), that the practitioner should resort to "venesection, a solution of ant. et pot. tart. in small doses, warm mucilaginous stupes to the perinæum sometimes, a tumbler of warm tea taken at a draught, and "then comes patience." Who has not seen all the above mentioned means fail? Aye, "with what feelings of humanity can the attendant physician coolly advise *patience* to a woman well nigh exhausted by direful throes, etc!" No, medicine, both as a science and an art, is progressive, and the sufferings of our fellow beings will ever arouse the real physician to reflection and to experiment. This spirit has actuated Dr. L., and experience has enabled him to offer to the profession one more means of assisting the parturient woman. That the remedy will prove infallible, he does not claim; he only cites cases illustrative of its efficacy. He claims that an infusion of *Lobelia Inflata*, (one or two scruples to the pint of boiling water), injected into the rectum, will act promptly in relaxing rigidity of the os uteri and parts adjacent. He, also, claims that the remedy is as safe as efficient. The object of this paper is to corroborate his claim by the record of another case.

Soon after reading the article of Dr. L., I was called by Dr. S. to assist him in a case of labor. The patient, a very nice and healthy lady, had been in labor about 18 hours. On inquiry, I found that she was a *prima-para*, had been married about 20 months, and was 41 years old! Vaginal exploration proved the os uteri to be open to about the size of a half dollar, but as rigid as possible, and rather dry and warm. The vagina, too,

rather warm, and by no means very ample; and the ostium vagina rigid. Pains were recurring every three minutes, and were quite forcible. Membranes still entire. Dr. S. assured me that this condition of affairs had existed ever since he was called in, and that he could perceive no change for the better. He had been administering "patience" both to himself and his patient.

In consultation, I mentioned to him the communication of Dr. Livezey, and proposed that we should try the Lobelia, before resorting to the usual routine laid down by authors. He assented, and in about an hour we had prepared an infusion of Lobelia of the strength of one dram to the pint. Of this, about three ounces were administered, by injection, every fifteen or twenty minutes—any effect on the general system being watched for by us in the mean time;—in less than an hour I touched the os uteri, found it dilating rapidly and much softer. Both the vulva and vagina were in an improved condition. The head presented well, and I ruptured the membranes. In half an hour thereafter the patient was delivered of a fine boy, of at least nine pounds, and without the slightest accident to the perinæum. No disagreeable general symptom followed the administration of the Lobelia, either immediately or remotely, and the patient recovered rapidly.

I must confess that I was delighted with the effect of the Lobelia, in this case, (the only one in which I have administered it), the more especially as there were contra-indications to the use of some of the ordinary measures recommended. In the first place, the patient, although in a state of health, was by no means *plethoric*, and observation has taught me that the less blood patients of this sort lose, the safer they are subsequent to delivery, and the more speedy the "getting up." Again, the patient had been vomiting, and was still vomiting freely, with every pain. Under such circumstances, nothing was to be gained by the administration of tartar emetic, unless on the principle of *similia similibus curantur*. Stupes to the perinæum were used while we were preparing the infusion of Lobelia, but with no effect.

But there is another point of considerable interest attached to this case. Meigs (Treatise on Obstetrics, page 192), in considering the case of a young woman who had been vomiting during her entire pregnancy, and who continued to vomit after labor set in, says:

"It is not good practice, in general, to rupture the membranes of a primipara; but in this instance I concluded that, if the ovum could be allow-

ed to discharge the waters, the condensation of the womb that would follow, might put an end to the vomiting. I thrust my index finger through the distended bag of waters at the next pain. From that moment the nine months' vomiting ceased, and returned no more. The labor, no longer delayed and contravened by the troublesome vomiting, hastened to a favorable conclusion."

That this troublesome vomiting in late pregnancy is often occasioned by the encroachment of the distended womb on the epigastric region, seems scarcely to admit of doubt; yet it cannot be the sole cause, as is held by some, since the vomiting of pregnancy exists often in its most distressing degree ere the womb has yet cleared the pelvis, or even after delivery has been accomplished.

In the case I have stated, I found the patient vomiting regularly and freely with every pain, and this she had been doing almost ever since the accession of labor. It was very distressing in her case, but I could as yet perceive no injurious result. I would not interfere with the membranes, while the os uteri was yet rigid; but as soon as I discovered the happy effect of the Lobelia on the parts, I ruptured the bag. The waters were discharged, and from that moment all vomiting ceased. I had the case of Meigs in my mind at the moment, and I was forcibly struck with the identity of the results.

It is, also, laid down as a very good rule, that a labor associated with nausea and vomiting is generally easy and speedy. This case furnishes an exception, inasmuch as constant nausea, and free vomiting, had no effect in relaxing the rigid os uteri.

SPECIAL SELECTIONS.

ON IMPOTENCY.

A Clinical Lecture delivered by Mr. Trousseau, at the Hotel Dieu, Paris.

Translated by ANTHONY PENISTON, M. D.

In offering these remarks on impotency, I wish to lay before you a few facts on a question as delicate as it is important. The disease of which I am about to speak is but recently known, and may, whatever be its origin,

present itself any day to the practitioner. Every one must understand how important it is to be familiar with the subject; for this disease, if ignored, may utterly ruin the health of the patient—a sad error on the part of the physician! Whereas, if properly diagnosed and treated, this apparently incurable affection may be entirely relieved.

I shall be obliged, however, in treating this subject, to call things by their names, using those words which are necessary to express my meaning—for clinical medicine has its brutal side, and as I am speaking to medical men, I shall not disguise my thoughts for the poor satisfaction of rendering my words a little more chaste.

We understand by seminal loss, an involuntary flow of semen, that is to say, a discharge of seminal fluid without any amorous provocation, or with *insufficient* provocation. An individual, for instance, has allowed a mass of hardened feces to accumulate in the large intestine; he makes violent efforts to expel it, and finally overcomes the resistance of the sphincter. In the passage, the fecal mass presses on the prostate, ejaculatory ducts, and vesiculæ seminales, causing an emission of spermatic fluid. This case enters into the domain of pathology, for, in the normal state of the genital organs, persons subject to obstinate constipation, have no such emission; as these parts, by virtue of their elasticity, should not be affected during the passage of hardened excrementitious matter.

Let us look at another case: A person informs us that the first gush of urine, and more especially the last drops of renal excretion are accompanied by a thick, viscous fluid, which sometimes adheres to the meatus urinaris. On examination we find that the consistency and odor are sui generis, at the same time that we recognize through the microscope, well developed, living spermatozoa. These are two examples of seminal loss without any erotic excitement.

In order that ejaculation may take place, there should be a previous act of some duration, for, however ardent may be the desires of a man who is both young and continent, no spermatic emission takes place, though he may be near the object of his passion. Again, with some persons, the least libidinous cause will produce a seminal loss, though there may not have been *sufficient* erotic provocation.

With men who are very abstemious in the pleasures of Venus, nocturnal pollutions, (the ordinary result of lascivious dreams,) if occurring at distant intervals, are a proof of health and strength; especially when unaccompanied with weakness or any other alarming symptom. But if these

nocturnal emissions follow each other rapidly, say several times a week; if the patient feels languorous and heavy, with less aptitude for work—in short, if he present, to some extent, the general symptoms which we are about to mention, this is no longer a proof of health, but a commencement of disease. Here, again, there has not been a sufficient natural excitement.

While attempting to introduce the virile member, in the act of copulation, some persons ejaculate at once, and then erection ceases. This is also an involuntary flow of semen, for there has not been a healthy excitement—intromission not being sufficiently prolonged. Whenever you will be informed of a similar state of things, question your patient closely, and examine him well. What may be the consequences of these spermatic emissions during defecation and micturition, of these diurnal and nocturnal pollutions?

Professor Lallemand, though he has exaggerated the consequences which follow seminal losses, has, nevertheless, contributed to throw a great deal of light on the question. He considered that the involuntary emission of sperm gives rise to several pathological states of the nervous system, such as hypochondriasis, mania, etc., and so far, he was right; but he was wrong in exaggerating its importance as a cause, and attributing to it the origin of innumerable diseases.

There is an aphorism which says: *Omne animal post cōitum triste*. The same idea, more poetically expressed, is found in the following verse:

“*Laeta venire Venus, tristis abire solet.*”

It is a matter of fact, that after coition, man is generally fatigued and sad. If he repeat the act often, his physical powers are depressed, his understanding becomes more obtuse, and his intellectual faculties less active. Soon after copulation, erection ceases, and it requires fresh excitement, or a certain interval to reproduce it: thus frigidity ensues, but only relatively speaking for a few minutes ago, *vir erat potens*.

From this state to absolute impotency, there are but few degrees, for impotency is nothing more than a continued state of frigidity.

Even when seminal evacuations are unaccompanied with the ejaculatory spasm, they are nevertheless an energetic cause of wasting and languor. On the contrary, in woman, the cynical spasm, though felt with as much, or even more violence than the other sex, is not followed with the same deleterious effects, and may be repeated much oftener without any unfavorable consequences. So that impotency is characterized by the involuntary

evacuation of semen, and not by the absence of excitement. A proof of this is, that nocturnal emissions, though unaccompanied with spasm, are, at length, when frequently repeated, a cause of impotency.

Now, what is the difference between frigidity and impotency? But first, as illustrative of our subject, I must relate to you an historical anecdote. In the early part of the reign of Louis XIV, a lady brought an action for divorce against her husband on the ground of his inability to fulfill marital duty. In presence of a jury of matrons, *congressus juridicus*, the couple were ordered to execute the conjugal act, and the husband failed completely in his part of the performance. They were divorced—but this same man, accused and convicted of being impotent, married another woman and had seven children!

This anecdote, however ludicrous it may be, proves at least one thing, that an individual reputed impotent, may be much more prolific than he imagines; for, notwithstanding an incomplete erection, and a precipitous ejaculation on the mere introduction of the penis, he may yet impregnate a woman—his sperm retaining its normal qualities. So that, from his deficient physical attributes the jury of matrons declared his inability to officiate, and yet he proved himself competent to procreate a number of children.

On the contrary, there are men who, though very amorous, and feeling themselves endowed with great sexual vigor, are yet powerless to beget children. Persons affected with seminal losses, are morose and depressed in spirits; they suffer from head-ache and vertigo; their sight becomes weaker, and they are, sooner or later, confirmed hypochondriacs. They are also subject to paralysis, especially paraplegia and divers other lesions of the nervous system, but not so frequently as Mr. Lallemand maintained.

Which organ secretes the sperm? But why this question, you may ask: is it not the testis? No, gentlemen, it is not. Tie the vasa deferentia on a ram, that most lecherous of animals, and you thereby completely isolate the testicle. Is the animal rendered less ardent? Not in the least. His libidinous propensities are as strong as ever, and ejaculation as abundant as before.

If a man have gonorrhœa, and double orchitis supervene, the epididymis may become indurated, and the deferential canals closed at their very origin; yet the same desires, and apparently the same verile powers remain, ejaculation takes place, and the spermatic fluid does not seem lessened in quantity; but he can never procreate, no more than the ram on

which we tied the spermatic canals. The reason of this is that the vesiculæ seminales secrete the spermatic liquid, and the testicle furnishes the spermatozoa. The result of Mr. Gosselin's studies, on the anatomy of the testes and the occlusion of its ducts are replete with interest and have elucidated perfectly this important point in pathological anatomy. We can understand perfectly why men, both young and strong, athletic knights in the lists of Venus, often accuse their wives of sterility. The truth is, that so far from being barren, if, perchance, they stake on their conscience some conjugal sin, they may conceive at once. The husbands have an indurated epididymis; they are unapt to impregnate a woman, and this is the real cause of the sterility of their wives.

See the old man bending under the weight of years approaching almost a century: though he may not have had an erection or ejaculation since forty years, yet he retains the manly voice and the forms of manhood. If, on the contrary, from accident or disease, he be castrated at 70 years of age, he loses at once his hair and beard, his voice changes and becomes as shrill as an old woman's. And yet his testis had long been useless. But this again, is at once the symbol and attribute of virility, even for those who do not or can not make use of its properties.

In stomatitis, the salivary glands secrete abundantly; in irritation of the neck of the bladder, the kidneys act in the same way, and the quantity of urine is materially increased; in inflammation of the intestines, the liver and pancreas secrete a much larger proportion of bile and pancreatic fluid; so in certain forms of catarrh we see an exaggeration in the functions of the mucous membranes, both ocular and nasal. Thus it is that irritation of the veru montanum, of the prostatic mucous membrane, and commencement of the ejaculatory ducts produces the same result; there is an increase in the secretion and an abundant flow of spermatic liquid.

Professor Lallemand thought that in any given case of involuntary seminal loss, there is always irritation of the veru montanum and of the prostatic mucous membrane. He explained in that way the flow of sperm. When urine escapes from the bladder of a child during his sleep, we can easily understand, as Mr. Bretonneau has shown, that at night, the contractility of the bladder is greater than in the day time, for then the urine is retained until emptied in one continuous stream. But during sleep, there is a peculiar irritability of the bladder, a species of tenesmus of the vesical muscle, which causes it to contract upon a very small quantity of

liquid, producing incontinence of urine. It is observable that this is especially the case in the first hours of night—an hour or two after going to bed. Now the same thing may take place with regard to the vesiculæ seminales; a person may be affected there just as the child is in relation to his bladder; incontinence of semen is like incontinence of urine; as there may be inertia of the bladder and its sphincter, so there may be inertia of the vesiculæ seminales and ejaculatory vessels.

Seminal losses were but little understood until Lallemand's time, and until then, had been empirically treated; but now this affection has had a place assigned to it in the domain of pathology, and it has been conscientiously studied. The following divisions have been established on the subject:

1st. seminal losses occasioned by chronic irritation of the prostate gland and prostatic portion of the urethra.

2d. Seminal losses of a spasmodic nature, analogous to nocturnal incontinence of urine.

3d. Seminal losses of a passive character, analogous to the diurnal incontinence of urine among children.

These divisions have been established because they appeared to be the expression of facts from actual observation; and also because they lead to therapeutical results of considerable importance. Lallemand, adopting one view of the subject, thought that any medication which modified and arrested urethral irritation, was also potent to arrest involuntary spermatic losses. He observed that among a great number of patients seminal losses came on after an attack of gonorrhœa which had not been perfectly cured, and that many men lost in this way the power, and even the desire of sexual intercourse; but according to him the chronic irritation of the urethral mucous membrane was the real efficient cause of the disease. Notwithstanding many exaggerations, we are forced to admit from the perusal of his book, that Lallemand must have derived many excellent effects from cauterization by means of the *porte caustic*. When this treatment was ineffectual, he had recourse to the anti-bleorrhagic remedies, such as injections with turpentine, copaiva, cubebs, tar water, etc.; by these means, he asserts that seminal weakness was always benefitted and often radically cured. Though Lallemand did not deny that involuntary emissions of sperm may have other causes than chronic irritation of the urethra, he attributed to the latter an undue importance. He used no remedial means against spasms of the vesiculæ seminales, whereas they are quite susceptible of treatment

either by internal medication, or external physical means. Belladonna, in doses of from one-quarter of a grain to one grain, taken on going to bed, is a powerful remedy, and always useful in cases of nocturnal emissions of urine, and as these have great analogy to involuntary spermatic evacuations, it follows that the same medication succeeds in a great number of cases.

As to mechanical means, in order to be really useful, they must resist the exaggerated contractability of the vesiculæ seminales, and stimulate the resistance of the ejaculatory vessels.

In 1825, being at that time interne at Charenton, Doctor Bleynie, one of the physicians of the establishment, related to me the case of one of his clients who had been suffering from impotency, until tempted by the brilliant but usually fallacious promises held forth on the last page of the newspapers, he applied to a quack, who cured him perfectly, by introducing into his anus a species of conical pyriform cylinder, made of hard wood, and which he induced him to wear in that manner for some time. I looked upon this, at the time, as some unworthy method to resuscitate worn out desires, or some disgusting manœuvre similar to those invented and practiced in houses of ill fame, by worn out debauches, and took but little notice of it. Ten years afterwards, I was consulted by a young man of twenty-six years of age, who though affected with the most absolute frigidity, was yet possessed with the irresistible desire to get married. Seeing him plunged in the most profound melancholy, and hearing that he thought very seriously of suicide, I sought every possible means to relieve him. I then remembered the marvellous cure which had been related to me many years before by Dr. Bleynie; I immediately contrived a species of pessary, and ordered him to wear it in his anus, keeping it in place by means of appropriate bandages. Before the lapse of fifteen days, he had several erections, and the seminal discharges were much less frequent. My client subsequently married, and was able to fulfill his conjugal duties; he is yet living, and is not impotent.

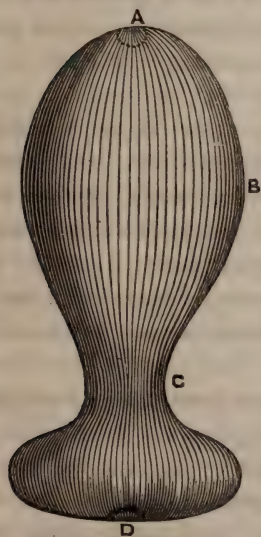
I now racked my brain to find the explanation of this fact, and soon ascertained that the quack had used the means without understanding its mechanism. The wooden cylinder necessarily pressing immediately on the prostate gland and ejaculatory vessels, prevented the seminal losses occasioned by spasm of those organs.

Since that time I have seen many other patients affected in the same way; and in proportion as my beard gets whiter, I see more of them. For it is seldom that they consult young men on a species of disease which is

considered somewhat disgraceful. They generally confide their infirmities to an old practitioner, who is usually more indulgent for those kinds of troubles, as he is better calculated to sympathize with them. In many of these cases I applied this method of treatment, and often obtained most excellent results from its use.

In imitation of those bandages which are employed to support hemorrhoidal tumors, I had contrived an elastic waistband, to which was affixed thin metallic rod, also elastic, supporting a cone of ivory, which penetrated into the rectum, and was maintained in front by two strings tied to the waistband. This cone was thus very solidly fixed, and on account of its spring-like attachments caused very little annoyance. When it gave pain, I had it covered with thin bands of India rubber. I afterwards attempted to improve the whole apparatus, and to modify the shape of the cone. With the coöperation of Mr. Mathieu, an instrument maker in this city, the cone which I now recommend is so shaped as to support itself in the rectum, and no suspensory bandage is required.

The annexed wood cut will show the form of the instrument:



It is perforated in its longitudinal diameter, as represented in the figure at the pointt A and D; this opening permits the exit of the gases which might otherwise inconvenience the patient. The part A, B, C, is introduced into the rectum, and the sphincter ani contracting at the point C, prevents the displacement of the instrument. The part C D, remains out of the anus. The cone, which is thus supported in the rectum, presses on the prostate and vesiculæ seminales, and this mode of compression is often sufficient, after a week or two, to arrest involuntary emissions of sperm, to restore the lost powers of virility, and to relieve alarming symptoms in the moral and intellectual faculties. This little contrivance is not

only useful against involuntary seminal losses, but is also an excellent remedy against nocturnal incontinence of urine. I have seen the bladder by this means resume its healthy state, thereby suppressing a most troublesome infirmity.

I need scarcely tell you that this instrument is scarcely applicable to

young girls; in cases of incontinence of urine, something similar might be introduced into the vagina, so as to press on the meatus urinarius, but this should only be done as a last resort, after belladonna and all the other therapeutic agents will have been found unavailing.

In my consultations, I often see some of my brother physicians ordering cold baths for these affections of the genital organs; for my part, I prescribe them as hot as possible. I tell them, moreover, to put two or three pounds of fine sand on a dish, and to have it heated until the hand can scarcely bear the temperature; then put the sand in a towel and apply it over the anus, perineum, and scrotum. Let them retain this application during half an hour or until the heat will have disappeared, and then repeat the operation the ensuing morning. Heat, in my opinion, is the most powerful of all anti-phlogistic means; cold, on the contrary, is a strong stimulant. Put your left hand in warm water, and your right hand in cold water, the former will be chilly all day, and the other burning. That is to say, when heat is applied to any part of the body, and then taken off, it produces the opposite reaction to that which had just taken place. Whereas, sea-bathing is an excellent means of producing derivation towards the skin; warm baths are, on the contrary, the best means of allaying its excessive irritability.

The physicians who treat specially the diseases of the skin, apply warm water for the cure of eczema of the face; for cold water has often been known to produce it, as is abundantly proved in hydropathy. That heat is a powerful anti-phlogistic agent is easily proved by hygienic facts. Look at the pastry cook and the baker, who remain several hours a day before a heated oven, exposed to a strong radiating heat; are their faces red? Perhaps so, when before the fire, but see them afterwards, how pale and ghostly they appear!

You see, therefore, that it is not merely to be in opposition with others that I employ heat instead of cold, but that I really have very good reasons for so doing. When I hear of any new therapeutical agent, I care very little for the source whence it comes, but I examine it attentively in order to understand its rationale, and mode of action. If it appear useful, I apply it, and if successfully, I recommend it accordingly. What matters it, if the remedy have been discovered by a quack, provided it be really useful? Here is a case in point: A very respectable physician of my acquaintance was astonished to see that several of his patients affected with sprains, were most rapidly cured by a certain mountebank. He immedi-

ately inquired into his manœuvres, and understood at once the secret of his success. When next he was consulted, he rubbed and pressed the foot like the fellow had done before him, until all œdema had disappeared, and his patient was immediately relieved.

But to return to heat in the treatment of seminal losses. I repeat it, when this remedial agent is applied for some time on any part of the body, it produces a contro-stimulant effect. It may be that the seminal losses will be increased for a night or two, but they will afterwards decrease rapidly, at the same time the powers of erection will be materially increased. These means, viz: compression and heat, should therefore be used in addition to the remedies prescribed by Lallemand.

When, on the contrary, seminal losses are produced by relaxation, you must first ascertain that no calculi exist—and then you should treat this want of tonicity—this passive flow of semen, by cold baths, and a hydro-therapeutical treatment. This state, being the very reverse of the precedent, it is not astonishing that an opposite treatment should succeed. You may prescribe at the same time preparations of *nux vomica*; and local compression, by means of the little cylinder, might also be serviceable.

After long continued seminal evacuations, nervous symptoms of a very severe nature often supervene, and these may survive the cure of the local affection which was the primitive cause of these disorders. This is an unfortunate complication, for the different varieties of monomania, hypochondriasis suicidal tendencies, paraplegia and paralysis are a sad train of accidents which often baffle our utmost efforts.

If you pay close attention to the treatment of seminal losses, you will find that you will relieve them all and cure the greater number. Beware, however, of those patients who, finding a rapid improvement, raise at once the cry of victory, and speak in exaggerated terms of their recuperated powers, and freshly acquired laurels; let them be careful lest by their heedless acts they bring on all the symptoms to which they had previously been subject. In such cases you must continue the treatment, from time to time, and impress your patients with the maxim, *prudence is the mother of safety*.

IDIOPATHIC SPASM OF THE GLOTTIS.

PART II.

Translated from the Archives Generales, by ANTHONY PENISTON, M. D.

(Continued from June No.)

Symptoms.—Convulsions occurred in the greater number of patients which came under my observation, and their appearance was generally a sign of aggravation in the disease, and increased spasm of the glottis. This symptom is rarely observable during the first attacks, coming on mostly after frequent and violent paroxysms. The disease may last for months without the little patient's having one single convulsion, and authors have cited cases where children have died of this disease who never had a convulsion. In one case, I saw the invasion of the spasma glottidis preceded by strong convulsions, and what was most remarkable, they were not repeated during the whole duration of this nervous affection.

When convulsions occur as a complication of spasm of the glottis, both attacks come on at the same time, and disappear together; but in those cases the access is of longer duration than when it is uncomplicated; it rarely lasts, however, over ten minutes, unless there be evident symptoms of cerebral congestion. I have often observed that the spasmodic symptoms of the glottis predominated at the beginning of an attack, but that they afterwards diminished in intensity; whereas, the convulsions which had come on a little later yet continued to agitate the limbs.

Convulsions may occur in some paroxysms, and be wanting in others, but they are rarely seen alone, unaccompanied by spasm of the glottis.

The intensity and nature of the convulsive movements are exceedingly various. Sometimes the whole body is agitated; at other times there are partial contractions of the muscles of the face, of the orbits, of the inferior maxillary, of the tongue and pharynx.

Most generally the convulsions are limited to the superior extremities during the first part of the paroxysm, and afterwards reach the lower extremities, producing partial or general contraction. Sometimes again, the convulsions are clonic, limited to certain parts of the body, or invading all the muscles of the extremities and of the trunk, and take on all the appearances of a most severe attack of eclampsia.

After a convulsive paroxysm of spasm of the glottis, the little patients generally recover very quickly; but when the attacks are very frequent and prolonged, they appear dejected, and the face retains a bluish tint,

with an œdematous appearance. This bluish coloration was also observed on other parts of the body, and can be explained by the disordered circulation attendant upon the prolonged suspension of the respiratory movement. As to the œdematous appearance of the face and extremities, I observed it more especially in one case, where it existed together with contraction of the extremities, and reappeared after every attack of the glottic spasm.

Progress and Termination of the Glottic Spasm: Spasmodic glottitis, is generally chronic in its progress, but sometimes it is acute, and children may die in the very first paroxysms. When this disease is left to the efforts of nature, or when its treatment has been neglected, it may continue during several months, a year, or even longer. In this chronic form, the paroxysms are separated by long intervals of good health; and they are brought on by some indisposition, or by one of the many causes which weaken the constitution and excite the nervous system. The progress of the disease is irregular, presenting none of the scholastic periods of incubation, increase and decline.

When spasm of the glottis is about to have a favorable termination, the paroxysms diminish in intensity and frequency, the convulsions are the first to disappear, the attacks of suffocation are few, violent and at greater intervals, and finally disappear completely, but children once affected, retain a great disposition to relapse.

In many cases which come under my treatment the disease was suddenly arrested, jugulated, as it were, though in some of these there appeared to be a mere isolated derangement of the larynx and diaphragm; in others there were well marked convulsive paroxysms. When spasm of the glottis occasions the death of the patient, the fatal termination is brought about suddenly during the paroxysm, either by asphyxia, cerebral congestion, or by simultaneous paralysis of the pulmonary and cardiac nerves, a sort of general prostration of the nervous system. At other times I have seen children die during the interval between the paroxysms without any dyspnoea, as if worn out by the intensity of the disease. This mode of death is most frequently seen in those cases which are complicated with chronic inflammation of the digestive canal, bronchitis, tubercles, hooping-cough, etc.

The convulsive form of this disease is sometimes followed by cerebral congestion and encephalitis; and these complications have given rise to

the improper term of cerebral croup, which has sometimes been applied to this affection.

Remittent form of Spasm of the Glottis: There is a peculiar modification of the glottic spasm which has not been sufficiently insisted upon.

In this form of the disease the symptoms are almost continuous, and the purely nervous affection might be mistaken for disease caused by organic lesions. Among patients thus affected, the spasms return very frequently, and continue a long time. The muscles of the glottis, the diaphragm and respiratory muscles are still agitated by contractions, when the spasm, properly speaking, is over; these accidents, however, when prolonged, present in a milder form the symptoms of the ordinary paroxysm. The nerves of the glottis and diaphragm appear to be the seat of increased susceptibility, and tendency to convulsion. The slightest causes, such as are impossible to prevent, excite in these patients the return of the dyspnoea, and the fits of asthma; such, for an instance, as crying, the act of sucking, the dorsal position, the least pressure on the abdomen, etc. Then it is that those cries, prolonged though weak, alternate with violent but fleeting symptoms, resembling perfectly those of the glottic spasm. In these cases, music is not only a remedial agent, but a means of diagnosis, for under its use the symptoms will soon disappear, and leave no doubt as to the spasmodic nature of the disease.

Prognosis.—Authors are generally agreed in considering spasm of glottis as one of the severest diseases of infancy. Out of ten cases which have been published in France, or of which I have obtained the reports, only two of the patients were cured. The German authors show that one-half of the cases which came under their observation terminated fatally. I do not, however, entertain as unfavorable an opinion on the gravity of the disease as that which has been asserted by the authors; I believe, on the contrary, that it is quite susceptible of cure. My conviction is such that I consider recovery as the rule, and death as the exception, unless there be serious complications from other diseases; even in these cases the spasm of the glottis may be cured, leaving the other intercurrent diseases to be governed by their habitual pathological laws. Out of twenty-four cases of this disease, which I treated, only two died; a third died suddenly a month after I had been consulted, and where the spasms had long disappeared.

Nevertheless, I look upon spasm of the glottis as a very insidious disease, more dangerous in proportion to the frequency and severity of the

attacks, some regard also being had for the youth and feebleness of the patients. The duration of the disease prior to treatment is not an obstacle to its cure, for I have seen patients, who had been afflicted during several months, or even a year, be completely cured after an appropriate treatment.

Causes.—Spasm of the glottis seems to be a disease peculiar to infancy, but their liability to this disease seems confined to a certain period of childhood. This has been observed by all the physicians who have written on the subject, and is confirmed by the cases in my own practice.

In arranging my cases with reference to the age of the patients, I find four cases among new-born children, seven cases from one month to six months, eight from six months to a year, four between one and two years. One child alone had passed two years of age.

Sex.—Some authors assert that boys are more subject to this affection than girls, but in my observation the contrary has been the case, for out of twenty-four cases there were thirteen girls and eleven boys.

Dentition.—The English physicians have insisted on the intimate relation of cause and effect, between spasm of the glottis and difficult dentition; but many cases of this disease occur at an age when dentition can hardly be said to have commenced, and I have generally observed that dental growth was very slow among patients affected with spasm of the glottis, between the ages of one and two years. Moreover, the severest accidents of dentition occur principally during the evolution of the larger teeth, and at that time spasm of the glottis is very rare. We may therefore say that difficult dentition may hasten the paroxysm when the child is already affected, but its existence as a general cause of spasm of the glottis is by no means proved.

Seasons.—Winter and the beginning of spring are most favorable to the development of this disease. I have observed the most numerous cases in the month of March. Seventeen times the disease came on between the months of November and April, the other cases occurred between May and September.

Mode of Life.—The more or less healthy location of the dwellings, the social position of the parents, the care bestowed upon the children, all these hygienic conditions have not been found to exercise much influence as a cause of this disease. I have observed spasm of the glottis among children belonging to the more elevated classes of society, as well as among the poor and needy.

Among the *accidental causes* which might be said to excite a paroxysm

where the disease already existed, may be mentioned the following: strong emotions, fright, anger, joy, long continued cries, the moment of awaking, efforts of painful deglutition, irritation of the laryngeal nerves, from the penetration of a liquid or solid particle into the trachea.

Pathological Anatomy, Nature and Seat of the Disease.—The ideas of Kopp on the proximate cause of glottic asthma were already combatted by Caspari and Roesch, who opposed to them a number of theoretical arguments of considerable value. Other authors cited cases where the thymus was very small, though the children had died of spasm of the glottis. Astley Cooper, on the other hand, has shown several cases of enormous development of the thymus gland, who had never suffered during life from any derangement of the respiratory function. The doctrine of thymic asthma, already shaken by several authors, was at last entirely refuted by Mr. Herard.

Out of six cases of children who died from spasm of the glottis, the thymus appeared only once to be of any considerable size, weighing about one ounce; but the child was remarkably strong and well developed. The five other children were poor and thin, and the thymus did not weigh more than from half a drachm to one drachm. On examining afterwards the thymus gland on sixty children between the ages of two and four years, dying from all sorts of diseases, and on twenty-three new-born children, Mr. Herard ascertained that the weight and volume of this gland are exceedingly variable and quite independent of the cause of death, being, on the contrary, in direct proportion to the physical development of the patients.

This same writer has also shown the absence of any remarkable organic lesion in children who died of spasm of the glottis. Those which he met were evidently accidental lesions, or the consequence of venous engorgement, produced by asphyxia. The lungs appeared emphysematous, the heart and large vessels were gorged with blood; and in the ventricles of the brain he found a small quantity of serous fluid. The examination of the brain, of the spinal marrow, of the pneumogastric, laryngeal, and phrenic nerves showed no appreciable lesion.

So that the symptoms of this disease, its progress, the negative results afforded by pathological anatomy, the successful use of anti-spasmodic remedies, all combine to show that this disease must be ranked among the convulsive disorders of the nervous system.

(To be continued.)

EDITORIAL AND MISCELLANEOUS.

TYLER SMITH'S LECTURES ON OBSTETRICS.

(Continued from the June No.)

"The ovule having thus been converted into the ovum by the process of fecundation, we have now to speak of the earliest phenomena observed in the development of the new organization. The first change which is known to occur, is the cleavage or segmentation of the yolk."

"The embryo cell elongates and separates into two cells by spontaneous fission. The yolk divides in like manner, and each separate cell is within these portions of yolk. By a similar process the cells again divide into four, and these into eight, and so on, until the product of the embryo cell and the yolk form a homogeneous mass, termed the germ-mass. This germ-mass is the plastic material out of which the whole organization of the foetus is gradually evolved."

The cells nearest the surface of this mass, (the zona pellucida or vitellary membrane investing the whole,) aggregate together at one point, and form a layer called the blastoderm, or germinal membrane. This divides into two layers, serous and mucous, the latter internal. Other cells of the mass collect and form a third layer between these two, called the vascular layer. The serous layer gives rise to the vertebral column, brain and spinal marrow, extremities, and general skeleton. The mucous gives rise to the mucous structures and glands; the vascular, to the heart and vascular system.

We must bear in mind that all these layers are spherical membranes contained within the external, or vitellary membrane. At some one point these layers all become thickened, and here the rudiments of the foetus are formed. This spot is called the area germinativa, being first round, then oval, then pyriform in shape. In its centre the cells of the serous and mucous layers become fewer, forming the area pellucida. Around this latter the cells of the vascular layer thicken and form the area vasculosa. In the centre of the area pellucida, and in the serous lamina, the first sign of the foetus appears, in the form of a groove. This primitive trace is surrounded by elevated ridges, *laminæ dorsales*. The trace may be said to represent the cerebro-spinal nervous centres; the lamina, the cranium and vertebral column. The *laminæ dorsales* in due time approach each

other, closing above the groove, or primitive trace. Thus is formed the vertebral canal.

While the upper part of these laminae are thus forming the vertebral canal, the under portion, or laminae ventales of Baer, elongate and form the ribs and abdominal walls, and have the same tendency to meet and unite in the medial line. The abdominal and thoracic cavities are thus formed, and the mesial raphe indicates in after life the place of union. The vertebral and cranial cavities, the cavities of the thorax, abdomen and pelvis are all thus lined with serous membrane. The limbs, with their joints, are, also, derived from the same membrane, and hence, possibly, their sympathies in disease with other and larger fibro-serous membranes, as in rheumatism and pericarditis. If the closing in of the spinal canal by the laminae dorsales is incomplete, we have spina bifida, or hernia cerebri; or if the lower laminae do not meet and close perfectly, we have cleft palate, hare lip, etc. This is the epoch when monstrosities occur. All the cases of double monster are explained by the union of two impregnated ova at this time.

"In the area vasculosa the first blood channels are formed, by the union of files of cells, and obliteration of their walls at the points of union; the first blood discs being formed, according to Carpenter, from the nuclei of the cells which have united to form the vessels. These vessels enlarge and are destined to carry to the embryo the nutriment absorbed from the yolk and chorion. The heart is formed from cells in like manner. The vessels are first formed, however, and the first flow of blood is *towards* the punctum saliens, or commencing heart. From this beginning is the whole circulatory apparatus developed, passing through the phases permanent in fishes and amphibia, to reach at birth the mammalian type.

Early in embryonic life the amnion appears. "Beyond the two extremities of the ovum, and on the outside of the area pellucida, the serous lamina projects in the form of two hollow processes, which gradually arch over the whole of the foetus, so that the dorsal aspect of the embryo is entirely covered by two layers of the serous lamina. These processes meet in the centre and unite together. Of the two layers of which the amnion is formed, one surrounds the embryo, and constitutes its proper envelope; the other becomes adherent to the external or maternal membranes." The ovum is suspended in the watery secretion of the amnion, and this fluid increases in quantity throughout pregnancy. The secretion of this large quantity of fluid is a purely physiological process, though it is

carried to excess sometimes, and then we have dropsy of the amnion. The amnion is a reflection from that part of the serous layer which forms the skin, and at birth the skin and amnion are in union at the umbilicus.

The mucous layer being innermost, is in direct contact with the central portion of the yolk. The beginning of the mucous canals is made by a constriction of the mucous layer on the under surface of the foetus, and is formed by two processes of the same gradually approaching each other. This construction gives rise to a larger and smaller cavity; the former being the umbilical vesicle, the latter the source whence are developed, by a process of reduplication, the mucous membranes and glands. The umbilical vesicle contains the remains of the germ cells. It is from this body that the early embryo derives nutriment chiefly. At this time the vesicle is continuous with the abdominal mucous cavity, by means of the vitelline duct, and nourishment is not only conveyed by this duct, but by means of the vasa-omphalo-mesenterica, these being developed in the mucous layer composing the walls of the vesicle. As soon as the material of the yolk process has been consumed, the vesicle, with these vasa, shrinks up and forms the vesicula alba, the white spot so often seen in the abortion of early ova.

The allantois is formed at the lower and anterior part of the embryo, from a mass of cells, as in the case of the heart and blood vessels. The cellular cavity becomes constricted, forming a larger and a smaller portion, and the latter is the urinary bladder. The urachus is the remains of the duct which originally connected the bladder and allantois. The allantois is partly an excrementitious organ, receiving the early secretions of the kidneys, but it is chiefly the means of conveying a loop of the blood vessels of the embryo to the maternal surfaces of the ovum, and thus providing the permanent fetal provisions for nutrition and excrementation.

LECTURE 7—*Decidua, Chorion, Placenta, and Umbilical Cord.*—Dr. Smith believes, with Sharpey, Weber and others, that the so-called decidua is the actual mucous membrane of the uterus itself, altered by a process of development, under the stimulus of impregnation. About the decidua reflexa he gives no decided opinion, but gives the opinions of Goodsir and Coste, the one believing it to be produced from a plastic layer exuded upon the surface of the decidua vera—the other that it is formed directly from the decidua vera.

The internal surface of the decidua vera is smooth, but its external surface has been examined by Dr. Montgomery and found to consist of a

number of cup-like elevations, or little bags, containing a whitish fluid, and which present open mouths on the side of the uterus. They are best seen at the second and third months, and disappear with advancing pregnancy. In cases of double uterus, where only one is impregnated, the decidua is sometimes found in the empty cavity, and it is occasionally, though not always found in the uterus in cases of extra uterine gestation. The decidua vera grows with the uterus, but its chief development is at the sight of the future placenta. This part of the decidua vera is called the decidua serotina. The external surface of the decidua vera and the internal surface of the reflexa ultimately become as smooth as serous membranes, and in the latter months of pregnancy, they are in such close contact as to render it difficult to divide them.

The chorion is internal to the decidua, and is found before the ovum enters the cavity of the uterus. This membrane is thought to be formed from a very early deposit of albuminous matter around the vitellary membrane. It is at first smooth, but when earliest seen in the uterus, it is covered with villi, presenting a shaggy appearance. It is uncertain whether it is formed in whole or in part before or after the act of fecundation. At first it is a source of nutrition to the ovum, but becomes converted into an absorbent organ, and obtains nutriment from the decidua and decidual cavity. At first each chorionic villus is bulbous in shape, and only contain cells which absorb nutritive matter; but when the allantois, with the umbilical vessels approaches the chorion, they contain vessels which are largely concerned in the growth of the fœtus. By the end of the fourth month, the villi of the chorion on the opposite side to the placenta have disappeared. Dr. Robert Lee believes that at the fifth month the cells of the chorion contain blood, which is poured into them from the cavernous structure of the placenta. The villi of the chorion do not become developed with the villi of the placenta, but form the most internal part of these villi.

At the time that the allantois, with the umbilical vessels, is arising from the caudal extremity of the fœtus, the decidua vera and reflexa are thickening at the point towards which the allantois tends, and a corresponding development of the chorionic villi takes place in the same situation. These are the elements of the future placenta. This tendency of the allantois to the point of decidual thickening is almost unerring, though there are rare exceptions, and the ovum perishes from dislocation between the umbilical, chorionic, and decidual portions of the placenta. Mr. Goodsir

gives the best account of the arrangement of the elements of the placenta, and I follow him.

The uterine arteries (examined in the gravid uterus) pass from the walls of the uterus, into and through the thickened decidua serotina. Passing through the decidual layer they twist, and hence are called the curling arteries of the uterus. They convey the maternal blood into large cellular chambers, which communicate with each other in all the middle portions of the placenta. The blood is returned from this cavernous structure of the placenta by the uterine veins, which, as they enter the uterine walls, are dilated into sinuses of considerable size. Such is the entire circuit of the maternal portion of the blood in the placenta. The arteries, cellular chambers, veins and sinuses, are lined throughout with a membrane continuous with the lining membrane of the vascular system of the mother. The placenta itself is nourished by special capillaries, which enter it from the uterus. The vascular apparatus and decidua form together the whole of the maternal portion of the placenta. The foetal half of the the placenta is found to consist of tufts, arrayed in an arborescent form; of villi, which are attached to branches of the tufts, and of the ramifications of the umbilical arteries and veins. The vessels of the tuft consist of a branch of the umbilical artery, and of a radicle of the umbilical vein. The foetal blood enters by the artery, passing out by the vein; but between each branch of the artery and vein there runs a capillary vessel of large diameter, carrying five or six globules abreast. The changes necessary to the foetal blood are undergone in these tufts, but there is no commingling of maternal and foetal blood.

The pulmonic or branchial function is not the only one performed by the placenta in foetal nutrition and excretion. The external or maternal layer of cells is believed to grow continually by assimilation of nutritive material from the blood of the mother. As they arrive at maturity they burst and their contents are ultimately poured into the circulatory system of the foetus.

When the placenta is carefully peeled from the uterine surface, it is covered by an unbroken layer of the decidua serotina, marked by the openings of the decidual arteries and veins. It is doubtful if the placenta possesses nerves or lymphatics.

AMERICAN MEDICAL ASSOCIATION.—The ninth annual meeting of the American Medical Association, was held at Detroit, Mich., from the 6th

to the 9th of May, ult. We give elsewhere a summary of the proceedings of this noble body, knowing that our readers are all interested in the same. The address of Prof. G. B. Wood is well worth the perusal, and we only regret that want of space forbids our publishing it in full. There were about three hundred delegates, and the meeting was quite an harmonious one. No doubt the forthcoming volume of Transactions will fully sustain the established reputation of the Association. We are of those who have an abiding faith in the great good that will result from the organization and perpetuation of this medical congress, and we look with confidence for the day when all good and true medical men will proudly acknowledge it as our supreme tribunal in all things pertaining to the welfare and advancement of the science of medicine.

It gives us pleasure to see the name of Dr. Henry Hartshorne before the world as the successful essayist for the present term. Dr. H. is one of the rising young men of our profession, and is now reaping the reward of his known industry. We say "young," because we were a medical student at the same time and place with him, and we are by no means old.

The resolutions affixed to the report of Prof. Gross, on "The Causes whice Impede the Progress of American Medical Literature," seem to have caused quite a sensation amongst the members; and well might they. For our own part, we are really surprised that such sentiments should have emanated from so distinguished a source. If, by advising the exclusion of foreign medical literature, to any extent whatever, from the eyes of our youth, Dr. Gross means to infer the superiority of American works, he stands almost alone in his opinion. That we have some American works of merit equal to any foreign, there is no doubt, and such works are patronized to the fullest extent they deserve; but all candid and unprejudiced minds must admit that, as a mass, foreign authors have the advantage of us. Nor should we be ashamed to acknowledge this. The eaglet has left the nest, however; and the partial equality admitted above is the strongest evidence of its determination and early ability to outstrip its parents in the race towards the sun. Dr. Gross' resolutions (as was justly observed in the Association) savor too much of "Know-Nothingism," and they come with a bad grace from one who has received so much applause from his trans-Atlantic reviewers. Moreover, as heartily as we do condemn the spirit of the resolutions, viewed solely in the light of their relation to the advancement of the science of medicine, we think they would have presented rather a fairer face had they emanated from

any other than an American author. It looks as if all American works did not sell as readily as could be desired. The forcible administration of a remedy is only advisable, however, in case of the existence of delirium, or in wayward children.

PROF. MUTTER.—From the Medical Examiner of June, we learn that Prof. Thomas D. Mütter has resigned the Chair of Surgery in the Jefferson Medical College. All who have ever attended the lectures of Prof. M. will regret to receive this intelligence, and they will, also, regret that decaying health is the cause of his resignation.

The editor of the Examiner says, that he learns it is the intention of Prof. Mütter to present to the College of Physicians, of Philadelphia, his magnificent museum; and, also, that he will endow the College with thirty thousand dollars, part of the interest of which will be devoted to preserving the museum in good order, and making additions to it, and the balance to founding a "Lectureship on Surgical Topics"—the lecturer to be appointed every third year.

Should this plan be properly carried out, the retiring professor will have erected a monument to his memory more enduring than any of marble; and he will not only merit, but will receive, the thanks and approbation of all good men, both in and out of the profession. Such are the deeds which render men exalted in the eyes of the appreciative world, even though they may be sneered at by the money-hoarder.

A LOUD CALL.—Prof. Gross, of Louisville, has been called to the chair vacated by Prof. Mütter. We have not learned whether he will leave his flock. No one stands higher than this venerable and distinguished gentleman, and the Faculty of the Jefferson have made a good selection. But alas! for the prophets nearer home. Will it never be otherwise than that such unfortunate individuals cannot be honored by their own "home folk"? But so the world wags. "Distance lends enchantment to the view."

THE CONTROVERSY BETWEEN MESSRS. RITCHIE AND DUNNAVANT, PUBLISHERS, AND THE EDITORS OF THE MONTHLY STETHOSCOPE AND MEDICAL REPORTER.—We noticed some time since that Messrs. Ritchie & Dunnivant, proprietors and publishers of the "Virginia Medical Journal—The Stethoscope and the Virginia Medical and Surgical Journal Combined," had prayed for an injunction to restrain Drs. G. A. Wilson and

R. A. Lewis from issuing the "Monthly Stethoscope and Medical Reporter," on the ground that they were thus infringing upon their rights as publishers of "The Stethoscope." The facts of the case are briefly as follows:

Messrs. Ritchie & Dunnivant were the publishers for both the "Virginia Medical and Surgical Journal," and "The Stethoscope," the former edited and owned by Drs. McCaw, Peebles and Otis, the latter owned by the Virginia Medical Society, and edited by Drs. Wilson and Lewis. Ritchie & Dunnivant ultimately became owners of both journals, and determined to merge them into one, (Virginia Medical Journal) retaining Drs. McCaw and Otis as editors, and dispensing with the services of Drs. Wilson and Lewis. The latter gentlemen then concluded to issue a journal on their own account, and style it "The Monthly Stethoscope and Medical Reporter." Ritchie & Dunnivant deem their rights infringed on by these gentlemen, and pray for an injunction, as above.

It gives us much pleasure to announce that the decision of his Honor Judge Meredith is adverse to the prayer of the plaintiffs. The cases cited by his Honor as precedents, tend to show most clearly "that the mere simulation of title, however close, will not warrant the courts in arresting the publication by injunction." Again, "that the mere assumption of the plaintiffs' title by a rival but distinct publication, however well established the plaintiffs' right to that title may be by uninterrupted usage and possession, will not warrant the court in awarding an injunction; but to the usurpation of title must be superadded some act of fraud or deception, to call into exercise the preventive powers of a court of equity."

The decision concludes with the following:

"In absence of anything really calculated to deceive the intelligent patrons of the Virginia Medical Journal, the decision in the cases cited is authority against this application for an injunction to restrain the defendant from publishing the Monthly Stethoscope and Medical Reporter."

We are strangers to all the parties concerned in this controversy, and therefore are not prejudiced; but we must congratulate Messrs. Wilson and Lewis in having thus triumphed over their opponents. This case involves a principle which cannot be too well established and understood in every community. All who have any experience, know full well that medical journals are not "money making machines," and he or they who labor as editors, should be the recipients of what little profits may arise. But above all, would it be unjust to allow any absorbing publishing office

to exercise a monopoly of our medical literature in any community? Messrs. Ritchie & Dunnavant may carry their cause to a higher tribunal, but they must inevitably fail in such a sordid enterprize. Success to the Monthly Stethoscope and Reporter, say we!

CIVIL WAR IN QUACKDOM.—Some kind friend of ours, in Cincinnati, has just sent us a copy of the Daily Sun, published in that city, in which we find a very interesting card "To the Public." Poor Cincinnati seems to be peculiarly infested with quacks; and our readers are probably aware that there is an establishment there called the "Eclectic Medical Institute." The Pseudo-Faculty of this institution have constantly been advertising themselves in terms of highest praise, and would have men believe that within the walls of their building alone could a knowledge of medicine be acquired. But it appears from the card above mentioned that two of the faculty (R. S. Newton and Z. Freeman) have been found totally incompetent to fill their chairs, and were consequently expelled therefrom by the Board of Trustees and faculty. These worthies, however, having no idea of parting with their bread and meat so summarily, entered the College in the stillness of night and took possession, and the card does not say whether they have yet capitulated.

The students take sides with the trustees and faculty, and publish the card "To the Public," which purports to set forth the facts, and is highly denunciatory of the expelled professors. We would not even hint on which side truth and justice lie, as these are virtues which really have no existence in such polluted atmospheres. We have always been advocates for giving these gentry ample rope, confident in their ability to hang themselves. This little row is but the index to the fate of all the horde of quacks, Eclectic, Homœopathic, Hydropathic, *et id omne genus*.

LOUISVILLE REVIEW.—We are in receipt of the first number of this new medical journal. Its contents are well selected and valuable, and the mechanical execution excellent. It is sufficient guaranty of its success to know that its senior editor is Prof. Gross, of Louisville, and it is also sufficient to say for the junior editor that he is found in such good company. We cheerfully exchange with the Review, and wish its editors the fullest remuneration for their labors.

HEALTH OF OUR CITY.—Our city has so long been in a state of almost unprecedented health, that we have for some time thought it unnecessary to do more than publish, in each number, the list of mortality, a reference to which would satisfy all interested. Within the past month, however, the list of mortality has increased considerably, giving rise, in some degree to exaggerated reports abroad, with regard to the existence of yellow fever here. It, therefore, behooves us to state the facts of the case.

Personal reference to the books of the Board of Health, shows clearly that the health of the adult population of New Orleans is good, and that the mortality list has been increased by the appearance of measles, scarlatina, hooping cough, and cholera infantum, amongst the little children—to say nothing of the effects of “dentition.” The quotation of one fact may prove satisfactory on this point. For the week ending Sunday, the 22d June, there were 35 burials in St. Patrick’s Cemetery, and of these 29 were little children. Another cause of the increased mortality is to be found in the great number of deaths from phthisis during the past six months. It is well known that persons afflicted with this disease flock here from every part of the country, and as the summer opens they die off. As to rumors of yellow fever, they are totally unfounded. Up to the present date, (June 25th,) there has not been a single well authenticated case. We have made every endeavor to search out even the one or two reported cases, but could not find them. The fact is, the Charity Hospital is the unerring index to the sanitary condition of New Orleans. When yellow fever begins, it is amongst the class of persons who patronize that institution, and there we are sure to find as early cases as occur in the city. Up to this time there has not been a case of the disease, and the indications are, so far, favorable, as all the fevers there are of a mild and manageable type.

MEDICAL MATTERS IN CALIFORNIA.—We are pleased to acknowledge the receipt of a pamphlet entitled “Proceedings of the Convention and of the Medical Society of the State of California, held in Sacramento, March, 1856,” and of a “Circular” signed by Thomas M. Logan, M. D., Corresponding Secretary, calling on the physicians of the State to furnish complete meteorological, topographical, and other data, to be published under the auspices of the State Medical Society. We also gather from the “Proceedings,” that the publication of a medical journal is about to be commenced under the auspices of the Society.

It gives us great pleasure to note this new era in the history of our young sister State. It is gratifying indeed to find that our medical brethren of California have not forgotten their obligation and their duty to work in another mine than those of the precious metals. If we are to judge from the present sample of their industry before us, we must predict a brilliant future, in a medical point of view, for California.

The Society has chosen for its Corresponding Secretary, Dr. Thomas M. Logan, formerly of this city, and fortunate have they been in their selection. Our personal acquaintance with Dr. L., warrants us in saying that he is just the man for the important position assigned him; that he is most highly qualified to give that impetus to the undertaking which will insure the achievement of its aims.

We most cheerfully send the Gazette in exchange for the Journal of the Society, and will look anxiously for the first number.

MEDALS.—The Howard Association of Norfolk has presented gold medals to each one of the thirty surviving physicians, (out of eighty who went there,) who lent their aid to the sick of that city and Portsmouth during the late terrible epidemic of yellow fever.

TO CITY SUBSCRIBERS.—Hereafter we will put all numbers in the post-office, (postage paid). We find it impossible to get a carrier to deliver promptly and faithfully, and as all persons have more or less communication with the post-office, our friends will be more certain to get the Gazette regularly. Again we say to our patrons, that we will be obliged to them if they will promptly apprise us of a failure to receive their numbers. When we mail the Gazette, we take it for granted that it reaches its destination.

LIST OF PAYMENTS UP TO JUNE 25TH, 1856.—Drs. A. F. Semmes, \$3, 1855; S. A. Cartright, \$5, 1856; E. D. Beach, \$5, 1856; A. Hensley, \$5, 1856; D. R. Cole, \$3 on account, 1856; H. J. Richards, \$3, 1855; J. S. Huguet, \$5, 1856; F. M. Hundley, \$6, 1854-'55; R. G. Salmon, \$3, 1855; Thos. Peniston, \$5, 1856; E. D. French, \$3, 1855, and \$2 on account, 1856; Thos. Theare, \$5, 1856; J. C. Maggini, \$5, 1856; Wm. Bertram, \$5, 1856; Ed. Martin, \$5, 1855; J. L. Crawcour, \$5, 1856; Wm. Rushton, \$5, 1856; G. A. Nott, \$5, 1856; L. A. Webb, \$3, 1855; D. K. Metcalf, \$5 on account; V. Choppin, \$8,

1855-'56; E. Hyde, \$5, 1856; Wm. G. Austin, \$6, 1855-'56; Stanford Chaille, \$5, 1856; S. Greenleaf, \$5, 1856; D. B. Pierce, \$5, 1856; J. A. Roland, \$6, 1854-'55; F. B. Coleman, \$5, 1856; J. J. Hulse, \$5, 1856; R. H. Chinn, \$5, 1856; J. Gunther, \$5, 1856; Wm. Mixson, \$6, 1855-'56; H. Snow, \$5, 1856; F. H. Bales, \$5, 1856; J. H. Jones, \$5, 1856; D. R. Fox, \$5, 1856; A. V. Shurtleff, \$5, 1856; H. Van Antwerp, \$8, 1855-'56; J. B. Houston, \$3, 1855, \$2 on account, 1856; M. Schuppert, \$5, 1856; J. B. Dungan, \$5, 1856; H. Smith, \$5, 1856; Wm. Kennedy, \$5, 1856; J. B. Weatherly, \$5, 1856; Adler, \$5, 1856; J. A. Dill, \$3, 1855; L. Johnson, \$5, 1856; F. Mays, \$5, 1856; Ed. C. Hughes, \$3 on account, 1856; C. L. Evans, \$5, 1856; P. H. Wade, \$6, 1854-'55; B. D. Chase, \$8, 1855-'56; G. W. Johnson, \$5, 1856; J. J. Gauthreau, \$5, 1856, F. D. Hall, \$5, 1856; C. H. Williamson, \$5, 1856; Wm. Johnson, \$5, 1856; Sam'l Matthews, \$11, 1854-'55-'56; J. E. T. Gourlay, \$8, 1855-'56; John Caldwell, Jr., \$3, 1855; L. N. Shelton, \$3, 1855; O. Ellis, \$8, 1855-'56; W. Wood, \$5, 1856; J. F. Seguin, \$5, 1856; T. Clapp, \$5, 1856; Wm. Cushing, \$5, 1856; Henderson, \$5, 1856; P. B. McKelvy, \$5, 1856; Jas. Ritchie, \$5, 1856; Maas, \$5, 1856; J. Plunkett, \$5, 1856; P. C. Boyer, \$5, 1856; G. W. Ketchum, \$5, 1856; Clement, \$3, 1855; W. E. Brickell, \$5, 1856; L. P. Conner, \$5, 1856; E. Doumeing, \$5, 1856; T. W. Baird, \$6, 1854-'55; P. A. Lambert, \$5, 1856; H. Daret, \$5, 1856; C. B. White, \$5, 1856; Dupas, \$6, 1854-'55; Esquire, \$5, 1856; J. D. Forstall, \$5, 1856; Bonzano, \$5, 1856; Barbe, \$5, 1856; S. H. Rives, \$5, 1856; J. Labatut, \$5, 1856; C. F. Hamer, \$5, 1856, E. B. Marmillon, \$5, 1856; C. Delery, \$5, 1856; Jas. Folwell, \$8, 1855-'56; S. F. Abbey, \$5, 1856; R. B. Baker, \$5, 1856; Preston Gibson, \$5, 1856; S. Van Allen, \$8, 1855-'56; B. B. Wilkins, \$5, 1856; John B. Crockett, \$5, 1856.

EXCERPTA.

AMERICAN MEDICAL ASSOCIATION.—We are indebted to Dr. Wm. Brodie, of Detroit, for a number of the "Detroit Weekly Advertiser" containing an account of the proceedings of the American Medical Asso-

ciation at Detroit. We present our readers an abstract of these proceedings, which we hope they will find satisfactory.—[Eds.]

The Association was duly organized on Tuesday morning, May 6th, Dr. G. B. Wood, of Philadelphia, President; Dr. Daniel Tilden, of Sandusky, Ohio, Vice President; Dr. Wm. Brodie, of Detroit, Secretary.

Dr. Pitcher, of Detroit, arose, and in the name of the physicians of Michigan, tendered a cordial welcome to the members of the American Medical Association.

A recess of fifteen minutes was then had, to allow the delegates from each State an opportunity to appoint a committee, consisting of one from each delegation, to act as nominating committee, to report nominees for the offices of the Association for the ensuing year.

The committee having retired, the President announced that he had received a communication from Boston, announcing the death of Dr. J. C. Warren, of Boston, one of the Vice Presidents.

Dr. H. H. Childs, of Massachusetts, arose and paid a handsome tribute to the memory of the deceased. Dr. Gross, of Kentucky, also offered some very appropriate remarks, and moved the appointment of a committee of five, to draft resolutions expressive of the sense of the Association in relation to this melancholy announcement. The motion was adopted and the committee appointed.

AFTERNOON SESSION.—A letter was read by the Secretary, from Dr. Grafton Tyler, of the District of Columbia, one of the Vice Presidents, expressing his regret at not being able to attend the meeting.

He also read a communication from the Tennessee Medical Society, and from individual physicians of Nashville inviting the Association to hold its next meeting at Nashville.

The committee on nominations then reported that they had chosen the following officers for the ensuing year:

President: Zena Pitcher, of Detroit; Vice Presidents: T. W. Blatchford, New York; W. H. Boling, Ala.; E. Geddings, S. C.; and W. H. Brisbane, Wis.; Secretaries: Wm. Brodie, Mich.; and W. C. Foster, Tenn.; Treasurer: Caspar Wistar, Pa. Confirmed.

Dr. Geo. B. Wood, on retiring from the chair, then delivered a chaste and beautiful address, in which he alluded to the past action of the Association, the good it had accomplished and its future prospects. Notwithstanding the Association has by no means accomplished all that it hoped in the beginning, still its meetings have resulted in good to some extent,

and it will yet reach its high aims. Its bread is cast upon the waters, to be found after many days. Seed has been scattered and will spring up and grow into usefulness. The Association has regulated and combined all systems, to plant itself on a firm basis, and the greatest bond of its union and durability is its adoption of a code of medical ethics which has been sanctioned by the voice of wisdom and experience.

Experience teaches that great objects are only gained point by point. It is important to the profession that a higher qualification be demanded. Intelligent men will adopt a recommendation of this kind, but coercion cannot be adopted. There should be something more than a nominal examination to entitle the student to enroll himself among the medical profession. This is only to be accomplished by slow steps. Violence is to be carefully avoided.

We must maintain the standard of morality set down, and adhere to the line of demarkation between the regular and the irregular practice, without controversy or contention. To wage war on quackery is what most delights it. Reason with our friends and demonstrate fallacies to them, but hold no arguments with quacks. We may disclaim the false epithet, Allopathists, as a discourtesy to practitioners of a great art, who claim to be gentlemen.

The efficiency of the profession is increased by persevering in the improvement of the science of medicine. The more we inform ourselves the better able we shall be to perform our duty to the public.

He urged the importance of vaccination and re-vaccination, and called on the profession to rouse the public mind to the importance of the subject.

Dr. Atlee moved that a vote of thanks be tendered the retiring President for the faithful manner in which he had performed his duties, and that a copy of his address be solicited for publication. Carried.

Dr. Pitcher then took the chair and offered a few appropriate remarks in acknowledgement of the honor conferred on him.

Dr. Barber, of Illinois, from committee on prize essays, reported in favor of one written by Dr. Henry Hartshorn, of Philadelphia. Adopted and referred to publishing committee.

Dr. Blatchford, of New York, reported on hydrophobia, and connection of season of the year with its prevalence. The report closed with the following :

Resolved, That the Secretary transmit to the Governor of each State the statistical part of the report, with a request to bring the matter before

the Legislature, in order to devise some plan to mitigate, if not remove, this disease. Adopted and referred to Committee on publication.

The committee on nominations reported in favor of holding the next meeting of the Association at Nashville, Tenn. After some discussion the report was adopted.

Dr. Caspar Wistar, of Pa., from publishing committee, reported that 1100 copies of the transactions had been published, at an expense of \$1,922 20, and that 749 vols. had been disposed of, and recommended that hereafter no paper be entitled to publication in the transactions unless handed to the committee prior to the 1st June. Adopted.

Dr. Caspar Wistar, of Pa., Treasurer, reported the balance-sheet of the Association, having a balance on hand of \$859 52. Accepted.

Dr. Jas. R. Wood, of New York, stated that he proposed to exhibit, during the next session, the entire jawbone of a patient, which he had removed in consequence of phosphatic disease.

SECOND DAY.—Dr. Caspar Wistar, from committee on arrangements, reported additional delegates. Adopted.

Various communications were read from chairmen of committees appointed to report on professional subjects, and asking further time. All referred.

A communication was read from the Secretary of the Ohio Medical Society, reporting that at a meeting of the society, at Zanesville, the following resolution was adopted.

Resolved, That the resolution offered by Dr. Grant, (a lawyer) at the last session of this Society, viz: "*Resolved*, That it is not derogatory to medical dignity, or inconsistent with medical honor, for medical gentlemen to take out a patent-right for surgical or medical instruments," was offered at a time when many of the members had left, and is not, therefore, the sense of the Society.

Resolved, That said resolution is in direct opposition to the code of medical ethics adopted by this Society, and, therefore, be it further resolved, that the said resolution, offered by Dr. Grant, and adopted by the Society, be, and is hereby repealed. Accepted.

A letter was read from Dr. Frank H. Hamilton, of Buffalo, asking further time to complete his report on deformities after fractures.

Dr. Brodie moved to amend the minutes of 1855 so as to continue Dr. Hamilton on the committee. Carried

Dr. Gunn, of committee on arrangements, moved that members of the

medical profession from Canada be requested to take seats upon the stand. Carried.

Whereupon, Drs. E. M. Hodder, J. H. Richardson, M. Bethune, Worthy Haswell, A. K. Dawson, Geo. Coatsworth, and John Tarquand, came forward to the stand.

President Pitcher said that he was happy in thus being present at the nuptials of the divided branches of the great Anglo-Saxon race. Dr. Hodder acknowledged the honor of so cordial a welcome from so noble an Association, and expressed his regrets there was not such an one in Canada, as he was assured that good to individuals and to the public would surely result.

Dr. Gross, of Kentucky, reported on the obstacles to medical literature and education, the chief points of which were summed up in the following :

Resolved, That this Association earnestly and respectfully recommend, first, the universal adoption, wherever practical, by our schools, of American works as text books for pupils. Second, discontinue the editing of foreign writings. Third, that a more independent course of the medical periodical press towards foreign productions, and a more just one towards American, be adopted. Fourth, that a better and more efficient employment of the facts which are continually furnished by our public institutions for the elucidation of the nature of diseases and accidents, and indirectly for the promotion of an original and independent national medical literature, be adopted.

Resolved, That we venerate the writings of the great medical men, past and present, of our country, and that we consider them as an important element of professional and national glory.

Resolved, That we shall always hail with pleasure any useful or valuable works emanating from the European press, and shall always extend to them a cordial welcome, as books of reference to acquaint us with the process of legitimate medicine abroad, and to enlighten us in regard to any new facts of which they may be the repository.

Dr. Palmer, of Chicago, objected to the first resolution, if it intended to give a preference to American over English ones of confessedly superior value.

Dr. Yandle, of Ky., moved to make the resolutions the special order for the next session ; lost.

Dr. Copp, of Rome, N. Y., said he hoped the resolutions would not

pass, as they showed too much of Know Nothingism to be worthy the dignity of the Association.

Dr. Leidy, of Pa., opposed the resolutions, on the ground that teachers were the best judges of text books.

Dr. Davis, of Ill., moved to lay on the table, until the report of the committee on American Medical Literature should have been reported; carried.

The Secretary read a communication from Dr. Jewett, of New Haven, on the subject of biographical sketches; adopted and referred for publication.

Dr. R. Breckenridge, of Ky., reported on American Medical Literature, in which he noticed briefly the latest publications, compared the advantages of medical research in Europe to those enjoyed here, and designated the method by which American could be made to cope with European medical literature. It was a voluminous report, and was received with marks of approbation. Accepted and referred for publication.

THIRD DAY.—Dr. Atlee, of Pa., offered the following:

Resolved, That all voluntary communications, hereafter presented to the Association, shall be referred to a special committee of —, to be appointed by the President on the first annual meeting, whose duty it shall be to examine such communications, and report on the propriety of their presentation and reference to the Committee on Publications. Carried.

A committee of three was appointed, Dr. Leidy, of Pa., chairman, to report on a plan for causing an increase in the number of prize essays presented.

Dr. Smith, of New York, moved that a special committee be appointed to report on a classification of those diseases which involve a derangement of the mental faculties. Carried; and Dr. Smith made chairman, with the liberty to appoint his own committee.

Dr. Atlee, of Pennsylvania, moved that a copy of the Association's transactions be sent to the Epidemiological Society of London. Carried.

Dr. Gunn, of Michigan, moved that any new Medical Society, not heretofore represented in this Association, be required to transmit to the Secretary, with the credentials of its Delegates, the evidence of its existence, capacity, and good standing. Carried.

Dr. McGrugan moved that a special committee be appointed to report on the subject of "stomatitis matima." Carried.

Dr. Bailey moved that Dr. N. S. Davis be requested to continue his

observations on the subject of the changes produced in the composition and qualities of milk by pregnancy and menstruation; also, the best substitute for the mother's milk, when weaning becomes necessary before the child is eighteen months old, and report at the next meeting of the Association. Carried.

Dr. Lindsley, of Tennessee, offered the following:

Resolved, That hereafter an annual prize of \$100 be awarded for the best memoir or essay, founded on original investigation of the author; and in case of no memoir or essay being presented worthy of such award, the prize money be appropriated towards the expense of publishing and illustrating such memoirs as may be subsequently deemed worthy of an award. Carried.

On motion, the Association then adjourned to meet at Nashville on the first Tuesday in May, 1857.

THE INFLUENCE OF OCCUPATION ON MORTALITY.—The attempts hitherto made to determine the influence of professions on health are greatly reduced in value, in consequence of the inadequate data on which they are based. If Ramazzini and Thackrah could have known the facts of the last Census, the observations resulting from their scientific and benevolent labors would have had the authority of natural law. That Census sheds the light of statistical truth on the relations of professions and occupations to mortality, and brings out truths which no less extensive investigation would enable the most sagacious observer to anticipate.

It will be an incalculable advantage to obtain, by means of the next Census, a scientific deduction as to the effect of each kind of occupation on mortality. As the initial step has been taken, we may expect it will be followed by others, in a path which, if beset with difficulties, cannot be traversed without leading to the most important and beneficial discoveries.

The last Census Report gave the number of persons in each occupation in 1851, and the Fourteenth Annual Report of the Registrar-General shows the numbers in those occupations dying at corresponding ages. In this early attempt to arrive at the ratio of occupation to the rate of mortality, it has been found that the difficulty arises from the want of definition of the various occupations, sufficiently clear and determined—a difficulty which can be overcome by giving more detail to future Census operations. It is, for example, found impossible to distinguish the rate of mortality among the different classes engaged in the manufacture of silk, of cotton, of linen,

and of woolen, as great numbers of them are grouped together under the designation of "Weavers." "Miners," whether in lead, iron, copper, or coal mines, fall under one general designation; and "Laborers," in the field, or railways, in quarries, and on the roads, are not distinguished from each other in the registers.

Still, there are certain occupations sufficiently defined to obviate all danger of their being confounded, and whose rate of mortality can now be recorded with certainty. We give these classes at the decennial period, ranging from 45 to 55,* as arranged in a Table (XVIII,) which shows the advancing rate of mortality in twelve occupations.

1. *Farmers*.—Of the twelve classes under consideration, Farmers are the longest lived, their rate of mortality being not quite 12 in 1000, (11:99). The number of English farmers of all ages in 1851, including 2429 graziers, was 225,747, of whom there were 53,608 between the age of 45 and 55. In that year the total number of deaths among farmers of all ages was 6426, very much below the numbers which would have been registered had these individuals been engaged in other pursuits. These facts prove that the pure air, daily exercise, the substantial fare, and the other aids to health enjoyed by this substantial class, considerably modify the influence of unfavorable weather, bad seasons, open ports, peculiar burdens on hand, and all the other ruinous things which farmers' friends have been accustomed to depict in such gloomy colors.

2. *Shoemakers* hold the next place to farmers, their rate of mortality between 45 and 55 being 15.03 in 1000. They are followed by—

3. <i>Weavers</i>	15.37 in 1000
4. <i>Grocers</i>	15.79 "
5. <i>Blacksmiths</i>	16.51 "
6. <i>Carpenters</i>	16.67 "
7. <i>Tailors</i>	16.74 "
8. <i>Laborers</i>	17.30 "

As will be seen on inspection, there is among these seven occupations a gradual increase in the rate of mortality, which, considering their great diversity, is quite remarkable. The near approach of these occupations to each other in the scale of mortality, arises from the circumstance that they have peculiar dangers which tend to counterbalance each other. Thus it is to be noticed, that "the tailor is not exposed to the explosions which are fatal to the miner, and the laborer has exercise which is denied to the tailor."

Ascending this scale of danger, we pass to—

9. <i>Miners</i>	20·15 in 1000
10. <i>Bakers</i>	21·21 “
11. <i>Butchers</i>	23·10 “
12. <i>Innkeepers</i>	28·34 “

A great disparity is observable in passing from laborers into the class of miners, telling a tale of dangers, many of which result from criminal neglect. Between laborers and the last four classes in this table there is a most remarkable hiatus. In the classes previously noticed, the difference in no case is more than one in a thousand, and in some instances less. Here the difference begins with three, and mounts up to nine, in a thousand.

The returns show that the highest rates of mortality are found among the butchers (23·10 in 1000), and the class of innkeepers and licensed victuallers (28·34 in 1000).

The extraordinary mortality of butchers is a fact for which we are indebted wholly to the last Census. The “red-injected face” of the butcher, has produced a wrong idea as to the healthy nature of his occupation. This idea is now corrected by scientific induction, and proper sanitary means will overcome the evil thus brought to light. To quote the significant remarks in the report conveying this fact, here is an important problem for solution :

“On what does the great mortality of the butcher depend ? On his diet, into which too much animal food, and too little fruit and vegetables enter ? on his drinking to excess ? on his exposure to heat and cold ? or, which is probably the most powerful cause, on the elements of decaying matter by which he is surrounded in his slaughter-house and its vicinity ?

If the rate of mortality among innkeepers, licensed victuallers, and beer-shop keepers should be seized with avidity by the advocates of tetotalism, they must not be forbidden its use ; at the same time they must be reminded, that “many highly respectable men of this class lead regular lives, and are of steady habits ; but others, exposed by their business to unusual temptations, live intemperately and enjoy less quiet at night than the rest of the community. They are exposed also to zymotic diseases, by intercourse with large numbers of people.”

Startling and painful as are these disclosures, they cannot be too widely published. They have a practical value among those who deal with the

*The decade from 45 to 55 is the only age to which the Census Returns have been applied in the Fourteenth Annual Report of the Registrar-General. We shall have still more important results when these returns are applied to earlier ages.

average of life, for commercial or benevolent purposes; while, to those more specially concerned, they show the necessity, for their own safety, of employing the measures by which unnecessary disease and premature death may be obviated.—[*Med. Times and Gazette.*]

CASE OF INVERSIO UTERI. By Samuel P. Brown, M. D., of Greensburgh, Pa.—Mrs E., a healthy young woman in her second confinement, requested my attendance on the morning of the 3d of April, 1856, at 3 o'clock, A. M. I found she had been in labor all night, the pains recurring at intervals of ten and fifteen minutes, short, and without tenesmus; This continued until about 8 o'clock, A. M., when they became more frequent and effective. Whilst walking about the room, a strong bearing down pain came on, during which she got on her knees close by the bed; I went to her assistance, when with a violent expulsive effort, the fœtus was extruded. She immediately complained of exhaustion and pain in the abdomen, and desired to be put to bed, which I requested the attendants to do, my attention being directed to the child. In a few minutes one of the women called to me that she was flooding profusely. I immediately went to her, and whilst my hand was on the abdomen, she was seized with a violent pain, which I thought expelled the placenta; but what was my astonishment, on introducing my hand under the covering, to find the uterus inverted, with the placenta adherent. Feeling very much alarmed for the safety of my patient, and knowing that my friend A. T. King, M. D., and my son R. Brown, M. D., were about that hour to meet in the neighborhood for the purpose of making a *post mortem* examination, I requested their attendance; meanwhile I attempted to return the uterus with the placenta, but failed. My son arriving at this time, took hold of the uterus and peeled off the placenta, then grasping the part with his hand, reintroduced it into the vagina, carried it through the os uteri, and indenting the fundus, pushed it forward with the fingers in a conical shape, and thus, without much difficulty, succeeded in replacing it. Strong uterine contractions occurred soon afterwards. Dr. King now came in, and at our request made an examination, and found the fundus again slightly depressed.

Under the careful administration of stimulants and anodynes, she soon rallied. No hemorrhage occurred afterwards, and with the exception of retention of urine, which required the use of the catheter twice daily, for the remainder of the week, she had a good getting up. The secretion of milk was not fully established until after the ninth day.

I have been actively engaged in the practice of medicine for upward of thirty years, have attended over three thousand labors, and never met with a case of inversion before. Authors inform us that the causes are atony of the uterus, or active contraction of the one part with atonic condition of another, too violent traction of the cord in extraction of the placenta, want of length in the funis or its shortening by being coiled around the neck of the child, etc. In the case now stated, my opinion is, that depression took place immediately on the birth of the child, from the violent expulsive effort, combined with the shortness of the funis, hence the sinking and pain, followed by hemorrhage, which ceased immediately when the inversion became complete.

REDUCTION OF A DISLOCATED FEMUR BY REID'S METHOD.—Professor Blackman has succeeded in reducing a femur that had been dislocated six months (twenty-four weeks) by manipulating after the plan of Reid. The head of the femur was thrown on the dorsum of the ilium, causing a shortening of the limb about two inches. The manipulation was performed while the patient was under the influence of chloroform, but the doctor thinks the effect of the chloroform was subsiding, and the muscles were beginning to act a moment before the head of the bone slipped into its socket.

We are not aware of any case in which the reduction of a displaced femur of so long standing has been effected by manipulation.

The operation was performed at the Commercial Hospital, March 22d, and the patient has suffered no unpleasant effects whatever.—*Western Lancet*.

TREATMENT OF ERYSIPELAS.—M. Velpeau gives the results of his treatment of 1000 cases of Erysipelas. He places the greatest reliance in iron. He employs the *proto-sulphate of iron* in solution about twelve grains to the ounce of water—or as an ointment, eight parts to thirty of lard. In forty cases in which this was exclusively used, the erysipelas yielded in from twenty-four to forty-eight hours. The ointment is more easily employed to some parts than the lotion, but is somewhat less efficacious. It should be applied about three times a day. The lotion should be applied by soft compresses or cloths kept constantly moist.—*Bull. de Therap.*

CASES FROM MY NOTE BOOK AND MEMORY.—*By L. Faulkner, M. D., of Halifax County, Va.*—Midwifery practice furnishes the most interesting cases to a country physician. In these cases life and death are more immediately brought before us, hanging as it were upon our skill and patience, as instruments in the hands of him who has doomed woman to travail in sorrow, with the conditional promise that nevertheless she shall be saved.

Among the difficulties endangering the mother's life, retained placenta stands prominent. It is my design to give a case or two of this complication of labor, without farther preface.

1841, July 7.—Saw Mrs. J*** about 1 o'clock P. M. Had been delivered of child four hours; labor pains frequent, forcing out large coagula of blood. A very intelligent mid-wife thought she had lost two chamber-pots full of blood. She was very much prostrated. The uterus contracted during the pains, but was flaccid in the intervals. Gentle traction by the cord was of no avail. I instituted a brisk friction over the region of the uterus, and administered five grains of ergot. Some contraction was soon imparted, and in about an hour the placenta was brought away by repeating the traction at the cord. Kept up the friction for an hour or two to insure against recurrence of hemorrhage.

1843, July 24th, 7½ o'clock, A. M.—Milly, a middle aged servant, had been delivered of a child about 12 hours, by a colored mid-wife, who had been unable to get away the after-birth. Labor pains strong, but little hemorrhage: uterus hard and of considerable size, and drawn from one side to the other and forward during the pains; a small portion of the placenta presented through the os uteri; the os internum rigid, and constricting tightly the placenta during the pains. Occasionally two or three fingers could be inserted through the stricture by the presenting portion of the placenta, which was found adherent by a large surface to the walls of the uterus. The slightest traction of the cord induced rigid stricture. Having the fear of Prof. Hodge before my eyes, (he inculcated the almost absolute necessity of taking away the placenta, whilst Dr. W. Harris, our examiner, on this branch at the medical institute, dissented from him,) I informed the master of my diagnosis, and requested consultation.

The late Dr. Thomas H. Averett, one of the very best accouchers in the country profession, was called in. He was called to her in the preceding confinement, and failed to get the placenta entire. Upon examination, he concurred in my diagnosis, that nearly half of it was adherent by morbid attachment. We remained with her from 4 o'clock P. M. until 12 nocte,

retaining hold of the placenta, alternately, an hour or two at a time, endeavoring to overcome the stricture and seize the first opportunity to detach it. During this time 25 grains of ergot were given without benefit. We had to give it up; and as only a small portion of it could be taken away, we determined to leave the whole mass, trusting to the *vis medicatrix naturæ*. As of course she was much exhausted in this time, quiet and rest were enjoined.

26th, A. M.—Pulse 110; no change in condition; rest; light diet, and tepid fomentations to vulva.

Evening—Pulse 120, and strong; pains frequent; abdomen tender, and rather hot; had a chill late in the afternoon.

Venesection one pint, reducing the pulse to 112; a large mush poultice to the abdomen; tepid injections per vag.; 10 drops acet. tinctr. op. ordered.

27th, 7½ o'clock A. M.—Pulse 120, and of sufficient force; sensation of weakness; frequent pains; soon after my arrival a strong one forced out a large portion of the placenta, causing a diminution of the uterine tumor, which was now only felt just above the pubes. The pulse abated to 110.

The weather being very warm, I cautioned the nurse to suffer nothing offensive to remain in the house. Injections per vag.; mucilaginous drinks and diet, and four doses of three grs. each of Dover's powder at intervals of two hours.

Nine o'clock P. M.—Found her cheerful; pulse 94; abdomen natural to the hand; had discharged, she thinks, the last of the after-birth. Evacuated the bowels by enema. Continue the antiphlogistic and antiseptic regimen, vaginal injections, etc.

28th, 6 o'clock P. M.—Has a slight headache; pulse 106, tolerably full and trilling; abdomen relaxed, with a little pain and tenderness just above the pubes; hot skin, and burning of the feet; bowels rather torpid. She has been suckling her infant. Warm elm poultice over hypogastrium.

R Calomel, five grs.; Dover's powders, three grs. in addition to previous prescription.

29th, 8 o'clock A. M.—Pain and tenderness much moderated; surface natural; pulse still 104 or 106; medicine has operated kindly; has discharged some shreds of tenacious mucus from the vagina. Applied 25 leeches to the hypogastrium, continue per vag. injections, and antiphlogistic regimen; convalescence from this time decided. In this case I

suspect the protracted efforts at manual delivery and hot weather combined, aggravated the subsequent symptoms.

1846, July 16th.—Whilst at the cabins, I was asked by the servants to examine what proved to be an entirely sound placenta, that had just been discharged by Eveline, a middle-aged woman, who had had an abortion of foetus four or five months advanced, about five weeks previously. She had been up most of this time, and occasionally out in the field, though troubled with repeated hemorrhages from the womb.

1846, August 9.—Saw Paulina, servant, about 21. Found the head of the foetus in the vagina—delivered it in due time. Pains inadequate to expel the afterbirth, and the hand could not be introduced to grasp it. Let her take needed rest during the night, and finding no change next morning, left her with the same prescription. Of course there was no flooding.

10th, P. M.—Statu quo. Warm fomentations to the abdomen and a dose of ergot were followed by expulsion of the placenta. In such cases I should hereafter try injecting the cord.

Now, from my experience and observation I conclude, that whilst the placenta ought to be taken away promptly when it can be done with safety, yet as there is danger of irritating the womb as much by persevering manipulations of us hard-fisted country physicians as by leaving the placenta, it is better to ground arms in proper time, and see that nature has a fair chance, interfering only to aid and comfort. Of course, when there is hemorrhage the efforts should be commensurate with the more urgent necessity of speedy delivery. A lamented friend some years since told me once after a hasty consultation with the attending physician in a case of alarming flooding with retained placenta, satisfied of the importance and practicability of taking it away immediately, he was staggered by a grave proposition from the horror-stricken husband, upon hearing their decision, that they all unite in prayer for divine assistance, before undertaking so momentous an operation. He replied to him that his wife was in imminent danger, but could be easily delivered; though he would not object to his prayer, provided it was short, for there was no time to be lost. They solemnly knelt down, and after a very appropriate prayer in matter and length, if not in time and place, the wife was safely delivered. As firm a believer as I am in our utter dependence upon the Supreme Being for success in every good undertaking, I rather think I should have called up Solomon in this consultation to testify that “there is a time for

all things," and suggested that it might be more suitable to strengthen my hands by prayer whilst I was engaged in the work. I should have hardly shown the professional courtesy that he did in taking the attending physician to one side after ascertaining the ease with which the placenta could be removed, to advise the operation. A paramount regard for the patient would have impelled me to complete the delivery while my hand was in. He was, however, scrupulously courteous in his profession, and in this case lost nothing by politeness both to the physician and husband.

EXPULSION OF TÆNIA BY PUMPKIN SEEDS.—*Communicated for the Boston Medical and Surgical Journal.*—I am indebted to Dr. H. B. Sherman, of this city, for the following case:

A child, aged eighteen months, was presented to him for advice, having glandular disease of the neck, tumid abdomen, unhealthy countenance, and symptoms which led him to suspect the existence of tape worm. This impression was confirmed by seeing fragments of the worm which had been obtained from the fæcal discharges. He accordingly prepared a gill of emulsion from two ounces of pumpkin seeds, which the child took on the 24th of January, 1855, followed after three hours with castor oil. In two hours more, a tape-worm was discharged, measuring full fifteen feet in length. At the time of this report, a few weeks since, the child was in excellent health, with no signs of a return of the verminous disorder.

Miss W. applied to me in December last to be treated for tape-worm. On the 30th of December, at 5 o'clock, A. M., she took eight ounces of the pumpkin seed emulsion, and in three hours after she had three tablespoonfuls of castor oil. The medicine operated between 3 and 4 o'clock, P. M. The worm was voided in the first operation, and measured eighteen and a half feet in length. A few days after, the remedy was repeated, as an experiment, but no further indications of tænia were obtained.

The advantages of the method employed in the above cases are obvious. It is simple, mild, and efficacious. To avoid disappointment in prescribing for tape-worm, a few points must be attended to. Patients are often suspected of having tape-worm from subjective symptoms only. These are not sufficient, and the failure of a remedy in such cases is presumptive proof that the diagnosis was wrong. The physician should *in all cases* insist upon ocular demonstration, which can easily be obtained, since portions of the worm are habitually voided by those who are infested with this parasite. The medicine also should be properly prepared and admin-

istered. For the convenience of those who have not a formula at hand, the following directions may be of service. Bruise three ounces of pumpkin seeds thoroughly in a mortar; add cold water, and beat the seeds with it intimately, until by expression and straining they yield eight ounces of emulsion. Let the patient take the above quantity in the morning, fasting, and follow it in two or three hours with a full cathartic dose of castor oil. Cold water is to be allowed, if desired, as a beverage, but no food should be taken, until after the operation of the purgative. W. W. ELY.

Rochester, N. Y., Jan. 19th, 1856.

A colored woman in Arkansas recently gave birth to four little darkies—three girls and one boy. The whole lot weighed twenty-eight pounds. At the last accounts the mother was *better* than “could be expected,” and the little woolly heads were all as lively as crickets. The given names of the girls are Mississippi, Ouachita and Red River, while the boy is called by the go-ahead name of Railroad. The wife of Mr. Washington French, in Mississippi, has just presented him with two boys and two girls at one birth. Mr. French was forty-five years old when he married, and has been married one year. Though commencing late, he is likely to be surrounded by a large family before old age overtakes him. Thus it will be seen that our “glorious country” is still in advance of the rest of the world, including France, in the baby producing business—to say nothing about great names for “little responsibilities”—as well as in everything else.

EXPULSION OF QUACK DOCTORS FROM CONSTANTINOPLE.—The Turkish Government has just taken stringent measures to expel from their service, and even from Constantinople, all the quack doctors that now swarm there. In this Capital there are, of one sort or another, doctors enough to form a strong regiment. The measures proposed to be put in force by the Government is that all doctors or surgeons shall exhibit their diplomas, and in case of their not being able to do so, to leave off practicing.—*Phil Med. and Surg. Journal*.

LEGAL RESPONSIBILITY.—Judge Minot, of Pennsylvania, has laid down the following rules of law, as applicable to physicians: I. The medical man engages that he possesses a reasonable degree of skill, such as is ordinarily possessed by a profession generally. II. He engages to exercise that skill, with reasonable care and diligence. III. He engages to exercise his best

judgment, *but is not responsible for a mistake of judgment.* Beyond this, the defendant is not responsible. The patient himself must be responsible for all else; if he desires the highest degree of skill and care, he must secure it himself. IV. It is a rule of law, that a medical practitioner never insures the result. These are received in general as sound views, and such as will govern every enlightened court. There could scarcely be a greater absurdity than to require physicians and surgeons to insure the result, when they can in no case control all parts of the treatment. Few serious cases are carried through a single day, and many not a single hour, without a violation of instructions on the part of nurses and attendants.

MODE OF INDICATING POISONS, MEDICINES, ETC.—The Dublin College of Physicians has recently issued an order, that in future all apothecaries and druggists shall keep medicines of a dangerous nature in square or angular bottles, and those of a harmless nature in round bottles, so that the most ignorant person, taking up an angular bottle, may know it contains a poisonous drug. Another order directs that in dispensing drugs and medicines, or selling them to individuals in their shops, all liniments and medicines for external use shall be sold in square or angular bottles, and all those for internal use in round bottles. Thus any nurse or other person taking up a bottle will know immediately whether it is for external or for internal use.—*London Lancet.*

MODE OF REDUCING STRANGULATED HERNIA, AFTER FAILURE OF THE TAXIS, BY A BLOODLESS OPERATION.—M. Seutin, the eminent surgeon of Brussels, is endeavoring to establish, in a Belgian Medical journal, the superiority of *tearing* either the inguinal or crural ring, over incising the same, for the reduction of strangulated hernia. He quotes experiments on the dead body, and several successful cases; and is confident that his method will soon supersede the operative measures generally resorted to. He places, first, great reliance on graduated taxis, continued with due precautions for a considerable period; and when this fails, he endeavors to hook his index-finger round the margin of the ring, by passing it between the tumor and the abdomen; and by using a certain force, he causes the fibres of the external oblique to give way and crack to an extent sufficient for the reduction of the hernia. M. Seutin defends his practice with considerable ability, and hopes trials will be made.—*London Lancet.*

MARRIED.—May 6th, by the Rev. Mr. Brooks, Prof. Samuel G. Armor, of the Ohio Medical College, to Miss Mary M., daughter of C. B. Holcomb, of Dayton, Ohio.

In days of yore, the men of old,
With sturdy limbs and courage bold,
Thick mail'd in steel, ne'er shunn'd a strife
With love, the prize—the hazard, life.

In these wild games, where swords or spears
Decided soon the fate of years,
Some Lady's smile nerv'd in the fray,
The conquering hero of the day;
And bless'd him with a "virgin zone,"
As Hymen join'd the twain in one.

From strifes like these great Castes aspire
To trace descent from some brave sire,
Whose deeds of valor won the fair,
And thus, a nation, for an heir.

But who can sing—what Prophet see
The coming race that springs from thee,
Thou conquering fair who fought and won
Before thy ARMOR was put on?

OBITUARY RECORD.—Died, in London, May 1st, 1856, aged —, Geo. J. Guthrie, well known as one of the most eminent military surgeons of our day.

In London, on the 24th April, 1856, in the 90th year of his age, Henry Clutterbuck, M. D. Dr. C. was for nearly seventy years an active member of the profession, during all which period his life was one of steady and continued industry. For fifteen years he edited the *Medical and Chirurgical Review*, (1795–1809), and was the author of several valuable works. He was three times President of the London Medical Society, and for upwards of sixty years attended its anniversary meetings.

At Hull, on the 13th April, 1856, Robert Hull, M. D., in the 62d year of his age. Dr. H. was the senior physician of Norwich, Physician of the Norfolk and Norwich Hospital, Physician to the Eye Infirmary, author of a work "On the Morbid Eye," etc.

At Paris, April 16th, aged 53, M. Vidal (DeCassis), Surgeon to the Venereal Hospital of Paris, (where he was M. Ricord's colleague), of long-standing renal disease. M. Vidal was universally respected. He was the author of an important work on surgery, in five volumes, which is a text-book in the French schools; also of a *Treatise on Venereal Diseases*.

At Paris, April 24th, Dr. Sandras, Physician to the Hôtel Dieu, and the author of a well-known work on the nervous system.

PROF. OWEN.—This gentleman has been appointed the head of the Natural History Department of the British Museum, with a salary of four thousand dollars a year. It is expected that Mr. Quekett will be appointed his successor in the Curatorship of the College of Surgeons.

FORMATION OF CASEIN BY THE PUTREFACTION OF FIBRIN.—It is known that when washed fibrin is exposed for a few days to a summer heat under water, it partly dissolves to a fluid which is milky, at about 148° Fahr., and coagulates at boiling heat. With reference to this point, Dr. Gunning observes, that previous investigators have not remarked that after all the fibrin is dissolved, and the whole has formed a more or less colored slimy fluid, not only a protein substance coagulable by heat, but also a body resembling casein, exists in the liquid. When this ammoniacal solution is saturated with acetic acid, and the flocculent precipitate formed by boiling filtered off, on the addition of acetic acid, there results in the filtrate a strong precipitate, which dissolves in an excess of the precipitant, and in this respect behaves as casein, and also exhibits all the known reactions of the protein compounds. The casein appears to be derived from the previously formed albumen—at least the turbidity by boiling is the slighter, and the precipitate by acetic acid the greater, the farther the putrefactive process has progressed.

From the fluid freed from albumen by neutralization and boiling, this second albuminous substance can, not only by acetic and other acids, be precipitated, but it can be also coagulated by rennet when sugar of milk is present at the same time; at least Dr. Gunning has not succeeded in coagulating it without the presence of this substance. However, he does not believe on that account that it is identical with ordinary casein, and more especially as it is not precipitated by boiling with chloride of calcium or sulphate of magnesia, and also because it does not form a film by evaporation in the air.

CHLOROFORM IN PNEUMONIA.—A Hungarian physician, Dr. Stohandl, reports three cases of pneumonia in which much benefit was derived from the inhalation of small quantities of chloroform, (30 to 40 drops,) repeated several times a day. After each inhalation the symptoms were relieved; after four or six hours they again became aggravated, but were again relieved by a repetition of the inhalation. In from five to eight days a cure was effected.—*Revue de Therap., etc.*

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CASE OF NEPHRITIS, COMPLICATED WITH JAUNDICE.

By ANTHONY PENISTON, M. D., Visiting Physician, Charity Hospital.

On the 28th day of June, 1856, Fritz Jellin, a native of France, entered ward No. 30, Charity Hospital, complaining of severe and deep-seated pain in the lumbar and right hypochondriac region ; his pulse was quick and sharp, skin hot and dry, presenting in fact all the symptoms of acute febrile reaction ; there was a slight yellowish tinge of the skin, more perceptible in the conjunctiva. At that time a species of epidemic of jaundice prevailed in the Hospital, and several cases were then under treatment in the ward, so that I referred the symptoms to an incipient case of jaundice. The man, however, insisted that the pain he felt was in his kidneys ; he said that he was a butcher by trade, and knew the position of those organs ; he admitted that he made water freely, and felt no pain during micturition. He attributed his disease to cold he had taken from being wet. I ordered six cups to seat of pain ; it seems, however, that when the student, Mr. Lilly, attempted to put on the cups, the patient was taken with a sudden spasm and fainted, so that the cups were not applied. The next day the patient presented the deepest saffron hue characteristic of jaundice : the fever continued, though much abated, and he still complained of pain in his back. I ordered a blister over the liver, together with mild diaphoretic remedies, spts. atheris nitrici, etc. On the third day I prescribed a full bath, and subsequently continued the treatment by means of purgatives and diaphoretics. Under this treatment he appeared gradually improving, and nothing was wanting for a radical cure, but the absorption and elimination of the yellow coloring matter deposited in the tissues. His urine, which I examined several times, presented the characteristic appearance

observed in jaundice, that is to say, a dark greenish color attributable to the presence of the bile.

On the 12th of June, I saw him at the morning visit, but he presented no unusual symptom : towards 12 o'clock, M., he was taken with a very violent colic ; the student then consulted Dr. Vance, Assistant House Surgeon, who prescribed a mustard poultice to seat of pain ; this producing no relief, he ordered six cups to abdomen. The next morning I found the patient still apparently in great agony : ordered two pills of the compound extract of colocynth, containing two grains each, to be given every two hours until the bowels were operated upon : also anodyne poultice to abdomen. These measures were entirely ineffectual, and he died on the 14th of June, at 1 o'clock, P. M.

The next morning I made the post mortem examination, with the kind assistance of my friend, Dr. T. Meux. The subject presents no external traces of decomposition ; the abdomen is, however, very much enlarged and distended with gas.

The different thoracic viscera were successively examined, and found to be perfectly healthy. The intestinal tube presented no morbid appearances, save in one place, where there seemed to be some congestion, and increased arborescence in the blood vessels. As some of the symptoms which preceded death might have been referred to intestinal obstruction, we examined the intestines with some care, but nothing was found to corroborate this suspicion. We next turned our attention to the liver ; and as jaundice is rarely a fatal disease, unless complicated with some intercurrent affection, as in this case, opportunities are seldom afforded of observing its pathological effects. The liver was evidently much diseased, its color changed to a very dark hue, resembling that of the spleen. Its consistency was also altered ; being exceedingly friable, and breaking down upon the slightest pressure into a black grumous mass : the gall bladder contained a considerable quantity of thin fluid bile, much paler than the normal secretion ; no traces of any calculi were found either in the hepatic or cystic ducts. We next turned our attention to the kidneys : these we found to be much reduced in size, and so soft that it required great care to take them out entire from the abdominal cavity. Both kidneys appeared shrivelled and puckered in every direction, producing a mammillated or hob nailed appearance. They were scarcely half the natural size, flattened down on the sides, and quite soft and flabby. On making a longitudinal section, the parenchymatous structure of these organs was found to be en-

tirely destroyed, no traces of the tubuli or cortical portions could be distinguished, both kidneys were reduced to a pulpy, jelly-like mass of a dark sepia color. But in this general disorganization and softening of the glandular structure, no traces of pus were found; the inflammation had evidently not reached the suppurative stage.

Reflecting on the singular course and fatal termination of this case, I have sought in vain among the different authors for some explanation of this obscure disease: even the learned and voluminous work of Rayer on Diseases of the Kidneys, offers nothing at all analogous to this case. Examples of inflammation and abscess of the kidneys are not wanting; gangrene of these organs, though a rare affection, has been seen, but it is mostly the result of large doses of some poisonous substances which have a special action on the kidneys, such as cantharides, turpentine and nitrate of potash. Moreover, I could not recognize any analogy between this case and the following description, which I translate from page 308 of Rayer on Diseases of the Kidneys:

“The phenomena which may lead us to suppose that acute nephritis has passed on to the suppurative stage, are the persistence of the pain, and of the febrile symptoms, the appearance of irregular chills at different hours of the day, the development of cerebral symptoms, the typhoid condition, the frequent and weak pulse. As to the termination in gangrene, I do not believe it has ever been observed in simple nephritis, without there being at the same time some pus deposited and infiltrated in many points of the renal substance. We can, therefore, readily understand that it is impossible to distinguish among the cerebral or typhoid symptoms those which are brought on by the mere suppuration of the kidneys from those which are peculiar to gangrene. Moreover, the termination of nephritis by gangrene is exceedingly rare, and the following symptoms which have been attributed to it, are gathered from a very small number of cases: sudden cessation of pain, at the same time the extremities become cold, the pulse is small and intermittent; there are continued vomitings, hiccough, an inexpressible sentiment of distress, and incoherent words soon followed by delirium; the urine may be either of a very dark color, and exceedingly fetid, or there may be complete suppression of this function; at times ptechiæ have been observed on the surface of the body.

“Whenever I have observed gangrene in simple nephritis, the kidney was also infiltrated with pus, and the patient had presented during life those typhoid or septic symptoms which are peculiar to the termination by

suppuration and gangrene. As to the black and fetid urine, I observed it in two cases where several of the cones were in a gangrenous state, the detritus from which was consequently mixed with the urine."

In an excellent article in *Archives Générales de Médecine*, 3d Series, vol. 1st, page 8, Mr. Chomel says: "It is generally believed that the internal use of certain acrid substances, such as cantharides and turpentine, may give rise to inflammation of the kidneys, but those substances are far from having on the urinary organs that direct action which is generally supposed, and I do not believe there is one authentic case of nephritis attributable to this cause."

Now, in the present case, neither do the symptoms during life, nor the pathological appearances after death, bear any resemblance to the above mentioned descriptions. Here we have a rapidly fatal disease, producing death in forty-eight hours, and then the kidneys are found so totally disorganized that their organic functions must have been totally impossible. Could I have foreseen the real nature of the case, I might have observed many symptoms which have perhaps escaped my notice; the severe and protracted colic, to which I had attributed the fatal termination, remains, however, unaccounted for.

In the next place, if we endeavor to elucidate the cause of this disease we must naturally ask ourselves, was the jaundice a cause or an effect of the inflammation of the kidneys? or were both diseases coexistent with each other, having been occasioned by cold and exposure, producing inflammation of these neighboring and contiguous organs? In support of the latter opinion we may say that at the very outset of the disease, when the yellow color of jaundice was scarcely perceptible, save on the more transparent tunics of the eye, the man complained of severe and deep seated pain in the back, which he referred to his kidneys. We may then admit that hepatitis and nephritis existed at the same time; but as the former progressed, the latter seemed to decline, for after the second or third day he no longer complained of any lumbar pains, and said he felt much better. But after a certain time the kidneys became the natural emunctories whereby the bile was principally eliminated from the system, and we may conceive that this abnormal function supervening at a time when the kidneys were already somewhat diseased, may thereby have produced that rapid and fatal disorganization of which the result was death. Now, if we may be allowed to hazard an explanation of the colic, we might attribute it to the poisonous properties of the urea which remained in the system.

The greatest of living physiologists, Claude Bernard, has shown by experiments on animals that when both kidneys are taken away by vivisection, the animals may live for several days. Having performed this operation for the purpose of seeing how soon urea appeared in the blood, he was astonished to see that for several days none could be found, until suddenly large quantities appeared at once, and then death rapidly supervened. Unable at first to account for this, he examined the animal very carefully, and found that the stomach and upper part of the intestinal tube were completely disorganized, at the same time it retained a strong ammoniacal smell.

He then examined, on another animal, the excrements which were voided after the extirpation of the kidneys, and found them to contain large quantities of urea. He thus satisfied himself that the stomach had exercised, in the absence of the kidneys, a vicarious function, which, however, could only be of very short duration; for when the mucous and glandular coats of the stomach become disorganized (as they soon were) the functions ceased, urea appeared in the blood, and the animal died from coma.

If these interesting physiological observations throw any light on this obscure subject, it is certainly not unreasonable to suppose that some analogous effects may have been the result, in this case, of the destruction of the kidneys.

POLYPUS UTERI.

MESSRS. EDITORS.—I sent you, about a week ago, a polypus uteri, removed from the uterus of a negro woman in this vicinity, presenting nothing singular in its size or structure, and only interesting as a well formed specimen of that class of morbid growth. The method of removal which I adopted, deviating slightly from that recommended and usually practiced, may induce you to overlook the ordinary interest of the case in its pathological relations.

The subject of the operation, a negress aet. 42 years, married, but never impregnated, had been unsuccessfully operated on about two years ago for a similar growth. She was much reduced by a constant hemorrhage and leucorrhœal discharge. I applied the ligature—a piece of well twisted silken cord—and, having secured the tumor as high up on its neck

as possible, and after tightening the same, I brought away the entire growth by torsion. The patient did not complain of pain, there was no consequent hemorrhage, and the inconvenience of wearing the instrument for several days, as well as the offensiveness of the sloughing process which would have otherwise existed, were obviated by the method detailed.

Your obedient servant,

H. J. RICHARDS.

Atchafalaya Quar. Station, July, 1856.

[The above is another instance of the successful removal of uterine polypus by immediate detachment of the mass. The result of our own observation has been such that we are really surprised that the method of gradual detachment by the sloughing process, after application of the ligature, should still find so many advocates amongst authors and others. When experience shows that hemorrhage so seldom occurs, even after *excision*, we are at a loss to account for the excessive dread of hemorrhage; and when it shows, too, how much of trouble not unfrequently arises from allowing a putrid mass of greater or less magnitude to lie in the vagina, we really wonder that operators are not more willing to encounter the few chances of hemorrhage. Velpeau, Sir Benjamin Brodie and Dupuytren, all advocate excision, and the latter is said to have excised *two hundred* polypi, encountering hemorrhage in but *two*. With such results as these, why should we fear immediate removal by torsion, or the *écraseur* of Chas-saignac, when the very principle of the operations would seem to indicate less danger than is encountered by excision with the knife? If the operator is so very much afraid of excision, he might at least improve the sloughing operation somewhat by applying the ligature, and then excise below it.

In Ashwell on Diseases of Females, page 356, third American edition, we find the following:

“Dupuytren is reported to have met with eight or ten fatal cases after the use of the ligature, all of which presented the symptoms arising from absorption of pus into the system. Such results, although I have now removed a very large number of polypi by ligature, have never occurred to me. As yet, not one of my patients has died who has been thus treated; although more than once hemorrhage, when I have excised, has been alarming.”

Such evidence, springing from high sources, is to the student not only

conflicting, but well calculated to confuse. In the one case we have Dupuytren excising two hundred times, with only two hemorrhages; yet he meets with "eight or ten fatal cases after the use of the ligature," it being most highly presumable that he did not resort to this mode of operation as often as he did to that of excision. On the other hand, we have Dr. Ashwell meeting with hemorrhage "more than once" (though he does not say in what proportion to the number of operations) where he has excised, and not losing one of his patients who were subjected to the ligature. In the first case, we know, of course, that the patients were not subjected to any of the annoyances or unpleasant results of the sloughing process; in the second, nothing is said about it, though all practitioners are familiar with them.

We do not contend for the knife in any other cases than those in which the pedicle is so large that the ligature cannot readily cut through; in these we think the application of the knife below the ligature preferable to allowing the strangulated mass to lie in the vagina. In all polypi with small pedicles, we must advocate immediate removal either by cutting directly through with the ligature, or by torsion.

Ashwell says: "I have never met with polypi insensible to the influence of the ligature," and he has removed "a very large number of polypi." Dr. Walter Channing, who gives a very interesting account in the *Boston Medical and Surgical Journal*, of thirteen operations for polypus by the ligature, says: "In two cases pain was complained of. In a third it was stated to be present after it was inquired about. In only one was it alarming—so severe as to lead to loosening and removing the ligature." Dr. Richards says there was no pain in the case he has detailed.

In conclusion, we must acknowledge our indebtedness to Dr. Richards for his communication, as well as for the beautiful specimen of polypus uteri, nicely put up in alcohol. The tumor is now (having, of course, shrunk considerably) two inches in length by one inch in its greatest lateral diameter.—ED.]



CRANIOTOMY.

By WM. E. BRICKELL, M. D., of Vicksburg, Mississippi:

June 4th, at 3, P. M., I was called to see Louisa, a negress belonging to Mrs. D., æt. 35 years, in good general health, and in labor with her seventh child—had been in labor since 12 o'clock, M., of May 31st.

Vaginal exploration revealed the head fully engaged in the superior strait of the pelvis, immovable, and with an extensive caput succedaneum. After as careful an examination as the condition of things would allow, I concluded that the head had probably tended to present in a first position in the beginning of labor, but, coming down under too great a degree of "extenson," the occiput had been thrown upwards, and the case was now in the precise condition represented in Warrington's *Obstetrics*, page 199, plate 77, viz., "the occipito-bregmatic diameter of the head, and the dorso-sterual diameter of the upper part of the thorax, attempting to pass down into the sacro-pubal diameter of the pelvis."

This diagnosis being established, the next step was to determine whether or not the child still lived. The patient *thought* she felt motions of the foetus about six hours before my arrival, but the midwife in attendance thought it had not moved for more than a day. I auscultated the whole uterine region with great care, but could detect no foetal circulation, nor could palpation detect any motions.

The liquor amnii had been evacuated since Sunday night, June 1st; after my arrival the pains were very inefficient, and by no means frequent, and the midwife informed me that she had had no strong pains for some time previous to my being called in. In the absence of pain, I attempted to effect a change of presentation by pushing up the forehead, and bringing down the occiput—in other words, by producing "flexion;" but all efforts were unavailing; the head was firmly wedged. I had no vectis.

Although the patient had been in labor four days, she evinced no signs of exhaustion, though she was very much alarmed, having been told that she should die in this labor. I advised the immediate removal of the child, as I was certain of its being dead, though I suggested a consultation. Her owner proposed Dr. S., who lived near by, and who, although a retired practitioner, stands high among his professional brethren, especially in the practice of obstetrics. He promptly joined me, and, after examining the patient carefully, concurred with me as to the position of the child: but, doubting whether life was extinct, he advised delay, being unwilling to see instruments used unless *peremptorily* indicated. I agreed to wait and to endeavor still, by manipulations, to effect a change of position, unless exhaustion should supervene, when delivery with instruments should at once be resorted to. Things remained in *statu quo*, until 9½ o'clock the next morning, when, on making another attempt to push the forehead up, there was a gush of a very offensive fluid, followed by a clot-

ted mass. I sent for Dr. S. again, and he joined me at 10 A. M. I informed him of what had occurred, and showed him the mass that had been taken from the vagina. He no longer doubted as to the death of the child, but, guided by the most humane impulses, proposed to substitute the forceps for the perforator. I introduced the blades, but found it impossible to lock them. There was nothing now to be gained by delay, but a great deal to be lost, so I urged the use of the perforator. I introduced this instrument into the cranium, and broke up the cerebral mass, which flowed out readily; and finding that the bones were now disposed to collapse, we gave her a dose of wine of ergot. After a little while I again attempted flexion by pushing up the forehead and pulling down the occiput. A pain came on at this time, and I soon had the satisfaction of seeing the occiput fall under the arch of the pelvis, and very soon thereafter the delivery of the child was completed.

Even under such unfavorable circumstances, my patient has had a good "getting up," and is now entirely well. She had been pregnant seven times. Three of her children were born dead, two having been delivered with instruments. She had had two miscarriages, both of which were very tardy. Of the two living children, one (6 or 7 years old) survives; the other died a few months after birth. In the three first named labors she lingered four or five days; in the last named, from twenty-four to thirty-six hours.

Here is another glaring instance of the worse than inefficiency of the "midwife," or, in common parlance, the "granny." This woman is blessed with an ample pelvis and a good constitution, but she and her child have been the victims of the ignorance of a wise old granny. Had she been seen before, or soon after the rupture of the membranes, the deviation of presentation could have been readily corrected, and she would in all probability, have given safe and speedy birth to a living child. If there is one stumbling block to the success and pleasure of the physician, it is the custom of the pre-employment of "grannies." Amongst white persons, and especially those who are in independent circumstances, the "granny" should really be nothing more than the nurse, her every step being under the guidance of the physician. On plantations, of course, it cannot be expected that the physician is to be called in to every case of natural labor; but he should at least have the benefit of an early call to such cases as do present difficulties. If we could only get these old grannies to acknowledge that they only know how to receive and dress a baby,

with how much more profit to the owner and satisfaction to the accoucheur could these cases be conducted! As it is, amongst white and black, rich and poor, scores of lives are lost and endless suffering inflicted, without the shadow of a good and sufficient reason. How often is the physician called on to mutilate a child which might a few hours before have been safely delivered! And how often does he leave the roof of his patient, not only filled with poignant regrets that he has had to imbue his hands in such innocent blood, but covered with the worst suspicions of those he has served, that he has killed without cause!

Such are some of the fruits of a system, or rather a custom, which is more firmly rooted in the South than elsewhere, and which it becomes the duty of all medical men to use every proper effort to subvert. In the name of common sense, and in a true spirit of justice, if the physician is to be the responsible person in these cases (and who ever heard of any responsibility attaching to the "granny,") let him have the conduct of the whole matter. In this way, we will not only have better nurses for females, but the physician, feeling the greater importance of his position, as well as the just responsibility imposed, will be stimulated to aim at greater perfection in his art, and thus will good result to all concerned.

CLINICAL CASES.

Reported by S. CHOPPIN, M. D., Professor of Surgery in New Orleans School of Medicine, Resident Surgeon, Charity Hospital.

Gunshot Wound of the Radial Artery—Secondary Hemorrhage—Ligation of both Extremities of the Wounded Artery.—J. R * * *, a German by birth, was admitted into the Charity Hospital, bleeding from the arm. On examination, the blood was seen to flow from an old wound in a granulating state, situated about four inches from the wrist, and towards the outside of the arm. The bleeding was profuse, arterial, and per saltum. A wound of the radial artery was evident. A month previously the patient had accidentally shot himself in the arm, and had applied to a physician who stopped the blood by compression. During the process of cicatrization, secondary hemorrhage occurred at four different times, and each time the attending physician resorted to compression to arrest hemorrhage. Exhausted, both physically and pecuniarily, the patient determined to enter the Hospital.

Cutting down on each side of the wound, I ligated both extremities of the artery, and all hemorrhage stopped. The usual precautions to promote the formation of collateral circulation were adopted, the wound healed, and in ten days the patient left the Hospital perfectly relieved.

The report of this case is offered as conclusive evidence in favor of tying both ends of arteries when divided. To resort to compression when the ligature is far more easy and safe is a mode of practice that cannot be too severely condemned.

Cancerous Tumor of the Thigh—Amputation—Recovery.—The subject of this observation, James Hailey, a native of Ireland, æt. 35 years, a common laborer on steamboats, was admitted into the Charity Hospital on the 10th day of May, 1856. He complained of a dull and heavy pain in the left thigh. On examination of the parts, a swelling, somewhat circumscribed, was discovered on the middle third of the femur; it seemed to be deeply seated beneath the rectus and vastus externus muscles. There was no redness accompanying this swelling; the patient's general condition seemed to be good; to use his own expression, he had always been healthy.

On being questioned as to the cause of this swelling, of which he complained, in the thigh, he stated that some time in February last, while following his occupation as a steamboat hand, in Eastport, Tenn., he was injured by the falling of a cotton bale upon his leg, which produced a severe contusion of the limb. The contusion had extended even above the knee. He however soon recovered from this bruise, and complained no more of his leg until after his arrival in New Orleans, about the first of April, when, according to his own statement, he sprained his knee while working on the levee.

From this time he says he began to feel a *burning pain* in his thigh, and to notice a slight swelling in the limb, which gradually increased until he applied for admission into the Hospital.

The tumor was more or less circumscribed; manipulations did not produce any uneasy sensation; on palpation it presented an elastic feeling which resembled fluctuation; the skin had retained its natural appearance. The bone could distinctly be felt from below and above the tumor, and presented no signs of enlargement. No bruit could be detected by auscultation, neither was there any pulsation to be felt. From the history of the case, and from the absence of all signs of aneurism, I was led to believe that the swelling observed was the result of an extravasation of blood beneath the muscles and deep fascia, produced probably by the injuries he

had received from the fall of the cotton bale. Acting upon this supposition, I punctured the tumor, and by means of a female catheter a quantity of dark grumous blood, very offensive, escaped through the opening. Detergent injections of chloride of soda and water were thrown into the cavity of the tumor, but finding that its size had not diminished, and the patient still complaining of pain, I determined to lay the tumor open, which I did by making an incision through its longest diameter. The same grumous, dark and fetid blood flowed as before, except in greater quantity. The skin, cellular tissue and vastus externus muscle, which had been divided by the knife looked healthy. This flow of putrid blood acted as a great drain upon the system, and the patient's previous good condition began to be seriously impaired. Night sweats supervened, colliquative diarrhea followed, and hectic blush was not long in making its appearance. Wines and stimulants, together with a supporting diet became necessary, to repair the injuries of a confirmed cachexia. Under this treatment he seemed to be getting along moderately well, until the morning of the 12th of June, one month after his admission, when the nurse repaired to me in great haste to inform me that the patient's leg was broken. So surprising to me was the intelligence that I could not believe it. A visit to the ward, however, soon convinced me of the accuracy of the nurse's diagnosis. Our patient had broken his thigh while shifting his position in bed. Extensive disorganization of the bone was no longer to be doubted, and immediate amputation was determined on. Amputation by the lateral flaps was performed in the healthy tissues, three inches from the seat of pain. The condition of the patient at the time of the operation was bad; he was very much debilitated, and particularly so after the administration of chloroform. He bore the operation without evincing any symptoms of pain. Reaction was long being established.

The prognosis was unfavorable, and still more so after examining the seat of injury. On cutting into the tumor an encephaloid cancer was apparent to all present. The whole mass seemed to consist in a great measure of a soft, opaque, pulpy substance, resembling in consistency a putrid and congested brain. It contained, probably, an abnormal quantity of pigment.

The remarkable feature of the case was that the bone immediately in contact with this cancerous deposit was not invaded by this heterologous mass, but seemed to waste away under the mechanical pressure of the invading substance. The bone was carious, it is true, but not cancerous.

A portion of the tumor was examined through the microscope, and the

detection of the specific cancerous cell, with its nucleus and nucleoli, confirmed us in our first impression.

The patient is still an inmate of the Hospital. His stump has perfectly healed, his general health has improved amazingly, and as yet there exist no symptoms indicating the return of the disease.

Inflammation of the Brain, the Result of a Fall—Treated by Cold Irrigations—Recovery.—John Hill, 18 years of age, a native of Massachusetts, and a sailor by trade, was admitted into the Hospital on the 26th of May, in a state of coma. He had, an hour previous to his admission, fallen into the hold of a ship, and had received a violent contusion on the back part of the head. No fracture or depression of the bone could be detected, nor was there any abrasion of the skin.

The patient was, to all appearances, laboring under concussion of the brain; he was insensible, his pulse full and soft, 45 per minute; his pupils very much contracted; the surface of the body was cold, and his respiration though not stertorous, was oppressed.

To reanimate his sinking condition an enema of turpentine was administered, and two drops of croton oil were applied to the tongue.

After the lapse of a few hours the patient began to recover from his stupor, but only to pass into a state of wild delirium. The temperature of his skin, from cool that it was, became hot; his eyes became injected and his pupils more contracted. The disturbance of the intellectual function, was great, and paroxysms of general convulsions soon showed themselves. The diagnosis of the case was no longer doubtful. Concussion of the brain had been followed by inflammation. On my next visit the patient was still furiously delirious, talks incoherently, and attempts to get out of bed; has not slept at all during the night.

General blood-letting was resorted to at this stage, the patient put upon small doses of calomel, and frictions of mercurial ointment were made over the abdomen and on the axillæ. Irrigations with iced water were effected by means of a large glass jar suspended to the tester of the bedstead immediately over the patient's head, so as to allow a small but continual stream of cold water to pour on the head. An attendant was stationed at the bedside to keep the vessel constantly replenished, and to regulate the position of the patient.

Evacuations from the bowels were obtained by means of injections, it being almost impossible to make the patient swallow anything.

This treatment was continued for five successive days, and it was only

on the sixth day of the attack that the inflammation seemed subdued and the patient was allowed to doze. The slightest disturbance, however, awoke him, and he seemed to be as violent as ever for awhile.

The treatment was persevered in until the 2d of June, when there appeared a decided change for the better. The patient was more inclined to sleep, he talked more calmly, and his pupils were less contracted.

On the morning of the 3d, the patient was decidedly more quiet, and for the first time partook of some nourishment, in the form of beef tea.

His improvement continued gradually, when on the morning of the 5th of June treatment was discontinued, and on the 11th of the same month the patient was able to get out of bed. He finally left the ward, having recovered his intellectual faculties perfectly.

It will be perceived after perusing the article, that the constitutional symptoms of mercury were not produced in this case; there were no evidences whatever of ptyalism. This was owing probably to the fact that on account of his inability to swallow, a great deal of the calomel that was administered was lost. The good effects of cold irrigations were in this case very striking. The continued stream of cold water which poured upon his head seemed to benefit the patient above all things, for whenever the negligence of the attendant would allow the stream of water to stop, or the the head of the patient to move so as not to receive the current, his symptoms immediately increased in intensity, and his furious delirium seemed to cry out anxiously for his placebo.

The effects of cold, in order to be beneficial, ought to be continuous; if not, it is productive of more harm than good. A continued stream of water is, therefore, preferable to cold compresses, the repeated application, of which are calculated to exhaust the patience of the most devoted attendant.

SPECIAL SELECTIONS.

OBSERVATIONS AND REMARKS ON DISEASES OF THE BRAIN. *By H. Bamberger.* (*Verhandlungen der Physikalisch-Medicinischen Gesellschaft in Würzburg. Band vi. Heft 2, p. 283.*)—Although we are not informed with regard to the number of the cases upon which Dr. Bamberger's remarks

are founded, it is manifest that his experience is extensive, and his opinions therefore carry considerable weight. The cases which he does record are of much interest, and embrace almost the whole field of cerebral pathology. The following are the prominent points of his investigations to which we would draw the reader's attention :

Apoplexia Nervosa.—Pathological anatomy has so much narrowed the limits within which it is possible to apply the term nervous apoplexy, that we now rarely meet with cases to which it may be fairly given—viz, those in which sudden death occurs with cerebral symptoms, and in which no palpable lesion is discoverable after death. It is probable that the microscope and pathological chemistry may reveal minute changes that have hitherto escaped detection, and that the term, in its present sense, may have to be entirely eliminated from nosology. Dr. Bamberger is of opinion that sudden death resulting from violent emotions, electricity, and concussion, must be classed in this category. He quotes one case that fell under his observation. A girl, aged twenty, previously in perfect health, was admitted into the Prague Hospital in January, 1850, having the evening before been seized with vomiting, followed by universal convulsions and unconsciousness, brought on by the information received in the morning of the same day that her lover had proved faithless. The temperature of the surface was elevated, the pupils unaltered, the eyes closed, the face pale, respiration stertorous, and the pulse intermittent. There was occasional spasm of the extensors of the upper and lower extremities, and also of the abdominal muscles. The extremities, when raised and allowed to fall, descended as if lifeless, though not actually paralytic. There was no return of consciousness, and she died twenty-eight hours after the seizure.

Necropsy. The brain was pale and anæmic, the walls of the left ventricle of the heart were slightly hypertrophied, the aorta very narrow and its coats thin, the heart and large vessels were full of loose coagula. All other organs were perfectly healthy. There was no suspicion nor any evidence of poisoning.

Apoplexia Serosa.—We are still on debatable ground; for although the occurrence of sudden death, with symptoms of apoplexy, and exhibiting serous effusion into the ventricles, the substance of the brain or the meninges, is undoubted, the majority of observers (as Abercrombie, Dietl, Wunderlich, Leubuscher) are of opinion that these cases are rarely, if ever, idiopathic. Dr. Bamberger has frequently met with the varieties of acute serous effusion alluded to, but is of opinion that they are always the

secondary result either of other cerebral diseases and abnormal states of the cerebral circulation, or of an altered state of the blood induced by some other acute or chronic disease, as granular kidney, typhus, acute exanthemata, tubercular, cardiac, and other maladies.

Meningitis.—Dr. Bamberger adverts briefly to a few points connected with this subject, one of which is the occurrence of inflammation limited to the ventricular lining membrane; he is of opinion that where the post mortem appearances indicate such a condition, a previous inflammatory exudation on the surface has been reabsorbed, or overlooked as an unessential concomitant.

Cerebral Hemorrhage.—The author refers all cases of hemorrhage to increased pressure in the vascular system, or to an altered condition of the coats of the vessels. He denies that passive hemorrhage accompanying dyscrasic states, results directly from the altered condition of the blood, but from the alterations previously induced in the coats of the vessels. He admits that the latter lesion has not yet been demonstrated. As but few authentic cases of passive hemorrhage within the cranium are on record, he relates some that have fallen under his own observation in typhus (typhus petechialis,) scurvy and chlorosis. The rarity of the occurrence in typhus is shown by the fact that Dr. Bamberger has only met with it once in above a thousand cases of the disease. In that case, after death, which had ensued on the thirteenth day of the typhus, in a boy aged fifteen, a cavity of the size of an egg, containing blood that was slightly coagulated, was found in the right corpus striatum. This was also the site of the apoplectic spot, found in a girl aged twenty-five, who died suddenly while under treatment for intense chlorosis. In scurvy, which the author has repeatedly found almost epidemic, he has also met with apoplexy in a girl, aged twenty-three, in whom numerous small apoplectic spots were found closely aggregated in the right anterior cerebral lobe, besides another large extravasation on the convexity of the left posterior lobe.

We must pass over the author's observations on the uniform occurrence of the crucial paralysis shown with reference to the facial, fifth, oculomotor, optic and acoustic nerves; on the rapid return of sensibility, compared with that of motility, in the paralyzed half of the body; on hemorrhage in the pons, the sac of the arachnoid, into the tissue of the pia mater, and the gray matter of the brain.

Red softening occurs in three forms; it may be latent and accompanied

with such trifling symptoms as not to induce a suspicion of a cerebral affection; it may be accompanied by symptoms of apoplexy; or it may manifest a very chronic form, in which we meet with the most varied symptoms of cerebral irritation and compression. It is only in the last variety that a diagnosis is possible, though even here there are numerous sources of error. A very peculiar case is detailed, in which the author assumes the conversion of the ordinary products of normal inflammation into tubercle—a view which is certainly at variance with the prevailing opinions on tubercle and the tubercular diathesis. The case is briefly this. A female, aged thirty-five, was seized in the fifth month of her seventh pregnancy with pneumonia, which lasted three weeks; about three weeks later severe headache was followed by sudden rigidity of the left extremities, the fore-arm and leg being flexed; severe convulsive movements of the same extremities ensued, lasting a few minutes. There was no unconsciousness, though she was slightly giddy during the attacks. The rigidity and the temporary spasms continued for a week, when she was admitted into the hospital (November, 1851.) She was able to answer questions, but her memory was somewhat impaired. There was occipital headache, paralysis of the left side of the face, violent contraction of the right trapezius, of the left arm and leg; attempts to overcome the flexion caused severe pain. Sensibility of the parts unimpaired, total loss of motility; some improvement took place in the paralytic condition, but in December an epileptic seizure supervened; delivery followed in the same month; further epileptic attacks ensued, with pleurisy in the right side, and advancing tubercular disease of the lungs. Death on the 27th January. The state of the brain was as follows:—On the inner and upper surface of the right hemisphere, a portion of the size of a dessert plate exhibited intimate adhesion between the membranes to the brain by means of a grayish red cellular tissue, and a yellow cheesy friable mass; the subjacent gyri were converted into a similar substance to an extent of nine to ten lines, not circumscribed as cerebral tubercle generally is; the cerebral tissue in the immediate vicinity was reddened and softened, the more distant portions almost pulpy. Old and recent tubercles were found in the apices of both lungs; the liver and spleen also showed tubercular deposit. Dr. Bamberger argues that the symptoms showed that the cerebral disease commenced with inflammation, and that therefore the deposit in the brain was the result of a conversion of plastic exudation into tubercle; but it necessarily suggests itself that the tubercular deposit may have been long dormant in the brain, and that the inflammation was a

secondary affection. Until such cases are multiplied, it appears illogical to adopt a theory which is opposed to the common experience of pathologists. Two interesting cases are given of encephalitis, resulting from plugging of the arteries by fibrine carried from other portions of the circulating apparatus.

With regard to cerebral abscesses, Dr. Bamberger only confirms the known fact of their remarkable latency. The details of three cases are introduced in evidence.

Paralysis Agitans.—In one necropsy of a female, aged forty-five, who had been subject to constant tremors of both upper extremities and the head from her childhood, the meninges were found opaque and infiltrated with serum of which two ounces were found in the ventricles; the brain was otherwise normal. The characteristic feature was found in the spinal cord, which was white and moist, and exhibited throughout the white matter numerous gray, gelatinous spots; from the middle of the cervical to the middle of the dorsal portion there was a central canal, admitting of the passage of a probe. Dr. Bamberger regards the gelatinous spots as the residue of previous inflammation, and the formation of the canal as the result of atrophy of the cord.

Encephalic Tumours.—The diagnosis of encephalic tumours still remains to a great extent, a matter of guesswork, the symptoms being mainly those of compression, which they share equally with other affections. Of 17 cases observed by Dr. Bamberger, 11 occurred in men, 6 in females—a ratio established by Lebert and Friderich. They were distributed over the different periods of life as follows:—Under ten years, 1; ten to twenty, 3; twenty to thirty, 4; thirty to forty, 4; forty to fifty, 2; fifty to sixty, 2; sixty to seventy, 1. Six were large tubercular or tuberculoid masses, two cancerous; two fibrous tumors; two simple cysts (not apoplectic); one echinococcus; one extended hard masses, of an undefined character; two osseous tumors in the cerebral tissue; and one cholesteatoma. In ten cases the cerebrum, in five the cerebellum, and in two both were affected.

The most uniform symptom was cephalalgia; this was absent only in two cases; it was severe and paroxysmal in six. Paralytic affections occurred next in order of frequency—viz, ten times; in five gradually, in five suddenly. Convulsive attacks were met with eight times; seven in the form of epilepsy, (six of these with cerebral, one with cerebular tumors); one in the form of convulsive affections of one side of the face. Derangement of the intellectual functions occurred in eight cases.

The details of three cases of encephalic tumours, for which, however, we cannot make room, conclude Dr. Bamberger's interesting communication.

ASPHYXIA, ITS RATIONALE AND ITS REMEDY. *By Marshall Hall, M. D., F. R. S.*—The term asphyxia, which ought to be exchanged for apnoea, designates that condition of the animal system which results from the suspension of respiration.

Respiration involves two processes—the inhalation of oxygen, and the exhalation of carbonic acid.

The remedy for the suspension of respiration is, on every principle of common sense, the restoration of respiration. This view might be considered irrespective of physiological inquiry and proof, as self-evident; but that proof is amply supplied by physiology.

Of the two functions suspended, it is certain, from physiological inquiry, that the retention of the carbonic acid is by far the more fatal, and that, in a word, asphyxia is the result of the carbonic acid retained in the blood—which becomes, in its excess, a blood-poison.

If this view be correct, it is evident that restored respiration is to the blood-poison in asphyxia, what the stomach-pump is to poison in the stomach: and that is *the* special remedy, the *sine qua non*, in asphyxia.

But this blood-poison is formed with a rapidity proportionate to the circulation, which is in its turn, proportionate to the temperature. To elevate the temperature, or to accelerate the circulation, *without* having *first* secured the return of respiration, is therefore *not to save*, but in reality, *to destroy life!*

Now let me draw my reader's attention to the *Rules* for treating asphyxia, proposed and practiced by the Royal Humane Society. They are as follow:—

“1. Convey the body carefully, with the head and shoulders supported in a raised position, to the nearest house.

“2. Strip the body, and rub it dry; then wrap it in hot blankets, and then place it in a warm bed, in a warm chamber free from smoke.

“3. Wipe and cleanse the mouth and nostrils.

“4. In order to restore the natural warmth of the body—

Move a heated covered warming-pan over the back and spine.

Put bladders or bottles of hot water, or heated bricks, to the pit of the stomach, the arm-pits, between the thighs, and to the soles of the feet.

Foment the body with hot flannels.

Rub the body briskly with the hand; do not, however, suspend the use of the other means at the same time; but, if possible, immerse the body in a warm bath at blood heat, or 100° of the thermometer, as this is preferable to the other means for restoring warmth.

"5. Volatile salts or hartshorn to be passed occasionally to and fro under the nostrils.

"6. No more persons to be admitted into the room than are absolutely necessary."

My first remark on those rules for treating asphyxia is, that "to convey the body to the nearest house," is doubly wrong. In the first place, *loss of time* necessary for this purpose is *loss of life*. On the contrary, not a moment should be lost; the patient should be treated instantly, on the spot, therefore. In the second place, except in very inclement weather, the exposure of the face and thorax to the breeze is an important auxiliary to the special treatment of asphyxia.

But most of all, the various modes of restoring the temperature of the patient, the warm bath especially, are objectionable, or more than objectionable; they are at once inappropriate, unphysiological, and deleterious.

If there be a well established fact in physiology, it is that an animal bears the suspension of respiration in proportion, not to the warmth, but, within physiological limits, to the lowness of temperature, the lower limit being about 60° Fahr. A warm bath of 100° Fahr. must be injurious.

All other modes of inducing warmth are also injurious, if they divert the attention from *the one remedy* in asphyxia—artificial respiration—or otherwise interfere with the measures to be adopted with the object of restoring this lost function.

Such, then, are the views which the scientific physician *must* take in regard to the late rules for treating asphyxia promulgated by the Royal Humane Society.

I now proceed to state the measures by which those rules must be replaced.

I revert to a proposition already made: as asphyxia is the result of suspended respiration, the one remedy for the condition so induced is, self-evidently and experimentally, the restoration of respiration.

But there is an impediment to artificial respiration never before pointed out. It is the obstruction of the glottis or the entrance into the windpipe, in the supine position, by the tongue falling backwards, and carrying with

it the epiglottis—an event which can only be effectually remedied by adopting the *prone position*. That position is displayed by the subjoined figure.



In this position the tongue falls forward, drawing with it the epiglottis, and leaving the ingress into the windpipe *free*.

But even when the *way* is patent, there remains the question, how is respiration to be effected? The syringe or bellows may not be at hand and even if they were, the violence used by them is apt to *tear* the delicate tissue of the lungs. The mode proposed by Leroy, of compressing the thorax by means of a bandage, and allowing its expansion by the resilience of the costal cartilages, is proved by experiment to be futile, chiefly no doubt, from its being attempted in the supine position, with the glottis obstructed.

The one effectual mode of proceeding is this: let the patient be placed in the prone position, the head and neck being preserved in their proper place. The tongue will fall forward, and leave the entrance into the windpipe free. But this is not all; the thorax and abdomen will be *compressed* with a force equal to the weight of the body, and *expiration* will take place. Let the body be now *turned* gently on the side, (through rather more than the quarter of a circle) and the pressure on the thorax and abdomen will be removed; and *inspiration*—effectual *inspiration*—will take place! The expiration and inspiration are augmented by timeously applying and removing, alternately, pressure on the spine and ribs.

Nothing can be more beautiful than this life-giving—(if life *can* be given)—this breathing process.

In one series of experiments, twenty cubic inches of air were *expelled* by placing a corpse in the prone position, and ten cubic inches more by making pressure on the thorax and ribs, the *same* quantities being *inhaled*

on removing that pressure, and on rotating the body on its side. But I must give the experiments in detail :

A subject was laid on the table, and pressure made on the thorax and ribs, in such a manner as to imitate Leroy. There was no result ; a little gurgling was heard in the throat, but *no inspiration* followed. The tongue had fallen backwards, and closed the glottis or aperture into the windpipe ! All inspiration was prevented.

Another subject was placed in the *prone* position. The tongue having fallen *forwards*, and the glottis being free, there was the *expiration* of twenty cubic inches of air, a quantity increased by ten cubic inches more on making pressure along the posterior part of the thorax and on the ribs. On removing this pressure, and turning the body through a quarter of a circle or rather more, on the side, the whole of the thirty cubic inches of air were *inspired* !

These manœuvres being repeated, ample respiration was performed !

Nay, there may be a question whether such considerable acts of respiration may not be too much.

It is to be observed, however, that, in this mode of artificial respiration, *no force* is used ; the lung therefore is not injured ; and that, as the air in the trachea and bronchial tubes undergoes little or no change in quantity, the whole inspired air passes into the air-cells, where the function of respiration is alone performed.

It deserves to be noticed, that in the beginning of this experiment in the prone position, the head had been allowed to hang over the edge of the table : all respiration was frustrated ! *Such is the importance of position.*

Reserving the full exposition of this method of *postural respiration*, this theseopnoea, for another occasion, I will conclude by reducing these views into the simplest *Rules* for the treatment of asphyxia.

NEW RULES FOR THE TREATMENT OF ASPHYXIA.

I. Send with all speed for medical aid, for articles of clothing, blankets, etc.

II. Treat the patient on the spot, in the open air, exposing the face and chest freely to the breeze, except in too cold weather.

I. TO EXCITE RESPIRATION.

III. Place the patient gently on the face, (to allow any fluids to flow from the mouth.)

IV. Then raise the patient into the sitting posture, and endeavor to *excite* respiration.

1. By snuff, hartshorn, etc., applied to the nostrils ;
2. By irritating the throat by a feather or the finger ;
3. By dashing hot and cold water alternately on the face and chest.

If there be no success, lose no time, but

II. TO IMITATE RESPIRATION.

V. Replace the patient on his face, his arms under his head, that the tongue may fall *forward*, and leave the entrance into the windpipe free, and that any fluids may flow out of the mouth ; then

1. Turn the body gradually but completely on the side, and a little more, and then again on the face, alternately (to induce *inspiration* and *expiration*) ;

2. When replaced, apply pressure along the back and ribs, and then remove it (to induce further *expiration* and *inspiration*) and proceed as before ;

3. Let these measures be repeated gently, deliberately, but efficiently and perseveringly, *sixteen times* in the minute, *only*.

III. TO INDUCE CIRCULATION AND WARMTH.

1. Continuing these measures rub all the limbs and the trunk upwards with the warm hands, making firm pressure energetically ;

2. Replace the wet clothes by such other covering, etc., as can be procured.

VI. Omit the warm bath until respiration be re-established.

To recapitulate, I observe that—

1. If there be one fact more self-evident than another, it is that artificial respiration is the *sine qua non* in the treatment of asphyxia, apnoea, or suspended respiration.

2. If there be one fact more established in physiology than another, it is that within just limits, a low temperature conduces to the protraction of life, in cases of suspended respiration, and that a more elevated temperature destroys life. This is the result of the admirable, the incomparable, work of Edwards.

3. Now the only mode of inducing efficient respiration artificially, at all times and under all circumstances, by the hands alone, is that of the postural manœuvres described in this paper.

This measure *must* be adopted.

4. The next measure is, I have stated, to restore the circulation and warmth by means of pressure firmly and simultaneously applied in the course of the veins, therefore upwards.

5. And the measure not to be adopted, because it tends to extinguish life, is the warm bath without artificial respiration.

This measure *must* be relinquished.

These conclusions are at once the conclusions of common sense and of physiological experiment. On these views human life may, nay, must, sometimes depend.

ON THE ANIMAL STARCH AND CELLULOSE QUESTION.—Virchow* has given the results of farther investigations on this subject. He divides the substance into true and false corpora amylacea, relying on the reaction of iodine and sulphuric acid, and on the fact that the true corpora amylacea are not soluble in hot alcohol, æther, etc., and are destroyed by concentrated acids and alkalies. Among the false bodies he classes:—1st. The brain-sand, probably the same which Busk describes as being found in the corpus callosum, and which was colored externally of a yellowish red hue by iodine. 2d. Various gelatinous and albuminous grains, spoken of as colloid-grains in certain tumors. 3d. The concentric epidermal globules often found in the thymus gland and canceroid tumors. 4th. The bodies found in coagulated blood described by Gulliver, Gerber and Hassal. 5th. The medullary matter described by Virchow himself on a previous occasion. 6th. The leucine grains obtained from extract of milk.

According to Virchow, the following are the places wherein true amyloid degeneration is certainly to be found. They are—1st. The nervous system. Besides the fore-mentioned parts, the spinal ligament of the cochlea, and many parts of atrophied brain and spinal marrow, show it. He had found it in the gelatinous and cellular softening of these structures, and he mentions its discovery by Busk in one case almost throughout the brain and the choroid plexus; by Willigk in cicatrices of brain; and by Rokitsansky in atrophied parts of brain and other structures. 2d. In the spleen. In the follicular cells and pulp, the thickened walls of arteries, especially circular fibres and in the trabeculæ. 3d. In the liver. In the waxy degeneration, chiefly in the cells, but also in intervening tissue. 4th. In the kidneys, which are pre-eminently the subject of the degeneration. The Malpighian bodies and the arteries leading to them become first affected; then the areolar tissue in the neighborhood of urinary tubes of papillæ; and then the other parts. Virchow says, that in most organs where they are found we have undoubted changes of the tissue elements, and that probably there is a "conversion into vegetable matter."

* Virchow's Archiv., vol. iii. Heft 1.

These starch bodies, chemically as well as morphologically, are very allied to starch bodies of plants. Busk says he has often seen in the smaller ones a dark cross by polarized light, whose arms intersect each other in the middle of the grains at an angle of 45° , the majority only showing a simple dark line. It seems necessary to guard against error by the remembrance that in several false amylaceous bodies a yellowish-red color called by Meckel iodine-red, is found by addition of iodine; and this is the case also with all blood-holding parts. The later addition of sulphuric acid will be requisite to determine the presence of true amyloid substance. This yellow or iodine-red appearance is compared by Busk to the appearance produced in unripe cellulose, such as is wont to occur in the lower plants. But in plants we have quantities of cellulose mixed with gelatinous substances, so that in the treatment with iodine and sulphuric acid we have all sorts of immature colors, indicating a mixture of blue and red, brown and yellow. Such a play of colors takes place in the spleen, specially in the amyloid substance from the pulp and follicles, but in no case does the blue or blue-red come forward with such clearness as in the Malpighian bodies and afferent arteries of the parenchyma of the kidney. Our author concludes that sooner or later the albuminous substance of the tissues disappears, and is replaced by amyloid substance. In those instances where the substance differed still more from starch proper it becomes more like cellulose proper; and the organs affected show that peculiar look called waxy or lardaceous. This same idea is acknowledged by Virchow to have arisen also at Edinburgh independently of himself. Generally the indurated organs are enlarged, leaving no doubt of the deposit of new matter. The co-existence of the same alteration in the spleen, liver and kidneys, leads naturally to the recognition of a common cause, a constitutional disturbance.

Since the above was written by Virchow in the "*Archiv.*," he has made another communication on the same subject; but before speaking of this, we will mention another communication made* by Mr. Carter, entitled the "*Extensive Diffusion and Frequency of Starch Corpuseles in the Tissues of the Human Body.*" In this, it will be seen, a different view is maintained on certain points. This observer saw the starch bodies in a tumor involving the optic nerve, and also the pinal gland of man and sheep; and, since then, made extensive experiments, examining in succession thirteen human bodies out of the clinical wards of Professor Bennett, of Edinburgh. He

* *Edinburgh Medical Journal.* August, 1855.

met with two kinds of starch, one resembling wheat, the other potato starch; and he found them in the liver, spleen, kidneys, brain, pancreas, mesenteric glands, suprarenal capsules, Pacchionian bodies, mesentery, lungs, ovaries, scrofulous matter, pus, urine, epidermis, blood, and other places, in organs as well healthy as diseased. In one case he found them around an apoplectic clot, but could not find them in any other part of the brain. In a case of diabetes, the other organs presented an unusual amount, but the liver was *free* from any. He never seems to have found them in the muscular structure of the heart. In the sheep, oxen, and lower animals, they were found in the same indiscriminate way; and the author says that they have hitherto been mistaken for fatty oil globules, to which, from form and refractile powers, they have much resemblance. He considers them as of physiological, not of pathological interest, being ordinary constituents of the body, and, as he calls them, "the thermogenic magazines," analogous to fatty substance, and capable, possibly, of conversion into grape sugar and carbonic acid, or into the lactic acid of the gastric juice.

In the second paper by Virchow,* to which we have alluded, the author thinks he has made considerable advances on the subject. In all cases in which he found the cellulose, chronic and extensive disease of the osseous system existed; and he thinks these diseases exercise a determinate influence on the production of the "waxy degeneration"—the disease, especially caries and necrosis, inducing a deficit of nutrition and cachexy, thus robbing the spleen, kidneys, etc., of their natural elements, and disposing them to take on the degeneration. He has never met with the amyloid substance in the bones, but has so done in the cartilage of the joints of an old person with senile arthritis.

EDITORIAL AND MISCELLANEOUS.

TYLER SMITH'S LECTURES.—(Continued from July Number)—*Lecture VIII.—Signs of Pregnancy.*—The difficulties attending the diagnosis of pregnancy, in particular cases, are manifold. We are frequently asked

* Archiv. p. 364. July, 1855.

for a positive opinion at an early period of gestation, when the signs are not pronounced with distinctness. The variation of symptoms in different women, or in the same woman at different times; the absence of some of the more obvious signs, or their simulation by disease; and the mental condition of the patient, all give rise to difficulties. One woman desires to have children, while another abhors the idea. Again, our dictum is required under violent protestations of chastity. Under all these circumstances, women are liable to deceive us. So that in a case of doubtful pregnancy we should consider only the physical phenomena. We should say with Gooch, that not "women's words, but their bellies," are to be believed in suspected cases.

Not only accoucheurs, but all medical men, should study the signs of pregnancy; otherwise the unexpected birth of a child may confound the practitioner; or abortion may be unwittingly produced; or, while suspecting pregnancy, serious disease may remain too long untreated. In cases admitting doubt, prompt judgment must be suspended, and treatment must be cautious, until certainty is established.

The first indications of pregnancy are to be found in the reproductive organs. An examination per vaginam, a few days after conception, proves the uterus to be hot, turgid and almost erect. Soon this gives way to softness and increased bulk; the bloodvessels increase in size; the cellular tissue is unraveled and dilated, and the parenchyma is moistened by interstitially-effused serum. The body of the uterus is anteverted, and may be detected in the anterior vaginal cul de sac. This, and the soft, cushiony state of the os, are among the earliest signs of pregnancy. The anteverted unimpregnated uterus is not attended by a soft condition of the os.

The speculum shows the os and cervix somewhat increased in size, the tissues less dense, and the white plug of mucus distinctly visible in the cervical canal. The permanent condition of the plug, and the increased acidity of the vaginal secretion, render it more firmly coagulated, and more intensely white.

Suspension of catamenia is one of the earliest signs of pregnancy, but its value as evidence is greatly impaired by liability to aberrations, and its being indicative of other conditions than pregnancy. There are many cases on record of its occurring from one to six times during pregnancy, and Heberden details a case of the persistence of the function during the entire term. Deventer and Baudelocque speak of females in whom the

catamenia appeared only during pregnancy, and women have been known to menstruate for the first time subsequent to impregnation.

The best rule, perhaps, for applying the catamenial test to cases of suspected pregnancy, is that if the suspension has persisted for several months; if, at the same time, the health has not suffered, and if the person is not giving suck, the probability that she is pregnant has reached the highest point to which it can be brought by evidence from this source alone.

Various derangements of the digestive organs usher in pregnancy. The exact period of their occurrence is uncertain. From the second to the sixth month they are generally established. They usually decline about the fourth month. The value of this sign rests upon its coincidence with other recognized signs. The synergic action between the stomach and the uterus, both as regards secretion, sensation, and motor action, are amongst the most remarkable phenomena of reflex nervous action.

Salivation is a sign of pregnancy, and the watery vomitings of pregnant women are thought to depend partly on increased pancreatic secretion—this supposition being favored by the analogy between the structure and secretion of the pancreas and the salivary glands, and the frequent excitation of the latter during pregnancy.

When pregnancy is but a few weeks advanced, the mammæ begin to take on certain new actions. The first indication is a sense of fullness and weight, with shooting pains, sometimes extending to the mamilla, producing "mastodynia." The afflux of blood now produces increase of volume, and the gland becomes hard, knotty, tender to the touch, and large blue veins appear over the surface. Almost any uterine irritation will produce enlargement of the breasts and sympathetic pains. Retention of menses from imperforate hymen, fibrous tumors of the uterus, ulceration of the os and cervix, and habitual and excessive copulation, all have the same effect. The most characteristic changes are to be found in the nipples and surrounding areolæ. The nipples become turgid and more prominent, and the areolæ assume a darker hue, modified by complexion. Ingleby says that the cuticle of the areolæ becomes scaly, and that the general surface of the breasts presents a mottled appearance. As pregnancy advances, especially a first, the deposit of pigment in the areolæ increases, the areolæ themselves become moistened, and the follicles studing their surface are prominent, distended, and bedewed with transuded fluid. Dr. Montgomery trusts more to the appearance of the follicles, the moisture on the areolæ, and the turgescence of the parts, than the deposit

of pigment. About the sixth or seventh month the *linea albicans* make their appearance on the surface of the breasts. Never disappearing after a first pregnancy, they are of little value as a sign of pregnancy except in *primipara*.

The size and form of the abdomen next arrest our attention in relation to pregnancy. During the first two months no enlargement is visible, or, if visible, can be trusted, as flatulent distension, etc., produce variations in dimension beyond the possible limits of any size that may be attained at such an early period. At first, indeed, the belly becomes flatter; hence the French proverb, "*en ventre flât, enfant il y a.*" About the third month abdominal enlargement becomes obvious in the nude figure. By the fifth month the navel is shallower, and the uterus may be distinguished through the abdominal walls; at the sixth month it is flattened out; and in another month protrudes beyond the level of the general surface of the abdomen. Numerous other circumstances give rise to enlargement of the abdomen, as ovarian dropsy, ascites, etc., etc. A little care will, however, suffice to draw the distinction. The history of the enlargement, its form, and the evidence procurable by means of auscultation, palpation and percussion, ought to preclude the possibility of any grave error in practice. When a blighted fœtus is retained in utero, no further increase in the size takes place; and this must be remembered in forming an opinion in a case where there has been progressive abdominal enlargement, with other signs of pregnancy up to a certain date, followed by recession of her uterine sympathies, etc., and arrest of increase of bulk. Silvery streaks appear on the abdomen when much distended, and they are permanent; but they do not occur in all cases. They are only of use as a sign of pregnancy in *primipara*. Dr. Cormack has drawn attention to the dark line in the median line of the abdomen. It is constant in late gestation, but being the result of distension, it is present in the case of other abdominal enlargements. Many authors state that the uterus suddenly rises out of the basin of the pelvis into the general abdominal cavity. This idea involves a notion of some great and sudden increase in the contents of the cavity, or of the sudden removal of some impediment. The real state of the case appears to be, that the uterus rises slowly out of the pelvis. At the fifth month the cervix uteri begins to shorten its cavity. The finger may be inserted into the os more readily as each month passes, and the follicular glands of the cervix may be felt just within. At the same time the os moves upwards and backwards; and by the time

it has reached its most posterior and superior position, the cervix has disappeared, the os being a mere rim.

Quickening generally occurs when pregnancy is advanced about half-way. Puzos had known it to occur at the end of two months; and it has not unfrequently been postponed to the sixth, seventh and eighth month. It is very variable—Leveret having recorded a case in which it did not occur at all. The physical cause of the symptom is doubtless motion of the foetus, and the period at which it occurs is most probably due to the increased size and activity of the child. The value of the symptom as a sign of pregnancy depends partly on whether the patient has experienced these sensations before, and partly on the amount of credence to be attached to her statements and opinions. It is not always easy to distinguish between the movements of the foetus and some other movements which occur in the pregnant woman. The uterus is subject to peristaltic contractions, which traverse the organ like a wave. They may be discriminated from the foetal kicks by the traveling ridge they produce under the hand. At other times, the uterus contracts at certain portions. It is the peristaltic actions of the uterus, and not the motions of the foetus, which are produced when the hand is dipped in cold and acid water.

In the year 1818, a great advance was made in the diagnostics of pregnancy. Mayor, of Geneva, published a memoir in the *Bibliothèque Universelle*, on the detection of pregnancy by the pulsations of the foetal heart. The discovery attracted little attention until four years afterwards, when Kergaradec published a systematic work on auscultation as applied to pregnancy. He added a knowledge of the so-called bruit placentaire to Mayor's discovery. Later, Dr. Kennedy discovered the funicular pulsations, and Naëgele described what might be called "sounds of the displacement of the foetus." The value of these sounds are very different, but there are no other signs of pregnancy so unequivocal, or on which one may so safely rely.

It may be said, as a general rule, that until the fourth or fifth month—that is, until the uterus has risen out of the pelvis—the uterine souffle is inaudible; after that it may generally be heard on any point of the region of the uterus accessible to the ear. The sound will vary in situation as pregnancy advances, rising from the pubis towards the fundus, but being seldom heard quite at the fundus or in the lumbar regions. The character of the sound varies from a hoarse or soft blowing murmur, to a cooing or a sibilant or musical sound. Now it is beneath the ear, and again it is

distant. It is synchronous with the radial pulse. It is modified by pressure of the stethoscope, and disappears and recurs again under the instrument. On some days, in early pregnancy, it is present, and on others it is absent. Whatever may be the exact physical cause of the sound, it is doubtless produced in the walls of the uterus, and not in the placenta or in the iliac arteries. For the same sound has been heard in fibrous tumor and vascular sarcoma of the uterus, and in moles. It is often heard over the whole surface of the uterus accessible to the stethoscope; it persists for a short time after delivery; it has been heard in cases where putrid fœtus have been born, and the placenta found with its vessels full of thickened and coagulated blood. If the sound were produced by pressure on the iliac arteries or aorta, it should disappear when that pressure is removed by the assumption of the prone posture; whereas, it persists in every position. Pressure should intensify the sound, if this hypothesis were correct. The contrary frequently obtains, and the murmur not unfrequently disappears under pressure made even on the anterior aspect of the uterus. Finally, the metroscope of M. Nauche, applied to the cervix uteri, through the vagina, transmits the sound when abdominal examination has failed to detect it. The sound is usually heard over the seat of the placenta, but this is only on account of the greater size of the uterine vessels in this region. As a sign of pregnancy, the uterine souffle is extremely valuable. It can be distinguished from any possible arterial imitation by the absence of impulse, or by changing the position of the patient; and a very simple device will distinguish between it and the vesicular murmur if the latter should be heard lower than usual, by lowering the stethoscope. The uterine souffle is no proof of the life of the fœtus, nor can we determine by it the position of the child, or the existence of twins.

Widely different from the foregoing accoustic phenomena is the double pulsation discovered by Mayor. There is a distinct rhythm in the sounds of the fœtal heart, consisting of two sounds of unequal length, followed by a pause. The average number of pulsations is 130, varying from 108 to 160 per minute. Hope gives 150 for the fifth month, and 120 for the ninth. This sound is generally heard for the first time during the fifth month. At first it is feeble and distant, but gradually grows stronger, and the diminution of the liquor amnii facilitates the conduction of the sound. The sound is very variable, now here, now there, changing under the same examination, or ceasing entirely for days together. Sometimes it is not

heard during pregnancy, but its absence is not conclusive of the death of the foetus, unless the sound has undergone a gradual declension in intensity, previous to cessation, and even then it is perhaps safer to look elsewhere for corroborating proofs before deciding. There is but one possible circumstance that can imitate this sound, and that is, when the sounds of the maternal heart, from emotion or other causes, are increased in frequency and force, and conducted through the liver and diaphragm to the uterus. Lower the position of the stethoscope, and you establish the differential diagnosis.

Dr. Kennedy says, that he has, in cases where the abdominal parietes have been very thin, been able to grasp the funis, and to apply the stethoscope to it. Dr. Churchill and Naëgele support Dr. Kennedy, against Hans and Hohl, who deny the fact. The observation of Kennedy can hardly be of any practical use, as the diagnosis would otherwise be sufficiently easy in cases of such attenuated abdominal parietes.

The sounds of the displacement of the foetus consist of shocks, more or less intense; and there are also friction sounds, evidently produced by the gliding of the surface of the foetus over the inner surface of the uterus. Naëgele avers that these sounds may be heard before quickening has taken place.

Ballottement is a means of acquiring information as to the circumstances of pregnancy, first made use of in France. There are two kinds, internal and external. The period at which the internal ballottement is applicable, is from the end of the fourth to the end of the sixth month, as a general rule, but it must vary according to the bulk of the foetus, the quantity of liquor amnii, and the width of the pelvis. When once discovered, it is tolerably conclusive of pregnancy. The external ballottement cannot be performed so early in pregnancy, and is inferior to the internal as an evidence of pregnancy. A kind of spurious ballottement may be found in cases of ovarian dropsy, where a pedunculated cyst floats within a larger cyst. Ballottement is no proof of the life of the foetus. Great length of the cervix uteri, or a footling presentation of foetus, will make the internal process difficult, and sometimes impossible.

Kies' ein in the urine is one of the minor signs of pregnancy. Savonarola gave an account of a urinary deposit, which was in this material, as early as 1486. Nauche and Eguissier are the modern discoverers.

Other and various minor evidences of pregnancy are mentioned, but are of minor import.

PHYSICAL EXPLORATION AND DIAGNOSIS OF DISEASES AFFECTING THE RESPIRATORY ORGANS—*By Austin Flint, M. D., etc. etc.*—(Blanchard & Lea, Philadelphia, 1856).—We have before acknowledged the receipt of this handsome volume, but have not been able to look into its contents until very recently. The deserved reputation of the accomplished author will at once command the patronage of the profession in this country, notwithstanding some of our prominent brethren seem to think American authors rather below par in public estimation, and would favor the idea of remedying the imagined evil by partially excluding foreign medical literature.

Professor Flint presents us with a volume of over 600 pages, in which he closely confines himself to the above text. To say that the work fully evinces the most patient research and the highest order of industry and observation is not saying one word too much; and yet we can go farther, and say, that the reader will find in this book all that he could desire in the way of information on the subjects of which it treats. The author seems to have set out with the determination to leave no stone unturned, and he has accomplished the object.

But the finest gold is often deeply buried, or, if near the surface, most difficult of isolation. The work before us in many places reminds us of the precious metal locked up in the glittering but worthless quartz, requiring the "crushing," or "grinding" process for its elimination. The author has overdone his task, and, seeming to copy the French style, has so spun out the subject as often to render a very clear subject most tedious and complex, especially to the student. For example, in the regional division of the chest, we have—

"Anterior surface, Posterior surface, Lateral surface, Anterior region, Posterior region, Lateral region, Post-clavicular, or Supra-clavicular, Clavicular, Supra-clavicular, Mammary, Supra-mammary, Upper Sternal, Lower Sternal, Supra-Sternal, Axillary, Supra-axillary, Scapular, Upper Scapular, Lower Scapular, Supra-scapular, and Inter-scapular regions."

Now, here is very fine staple cotton, (if we may be allowed the homely comparison,) spun out to a thread so attenuated that the material into which it is manufactured becomes almost worthless, except as an article for ornament. What possible advantage can arise from thus mystifying a simple subject. To the general reader this is tiresome; to the student it is worse, for it only tends to confuse him in the study of an otherwise

plain and uncomplicated subject. If a man understands the anatomy of the thorax and its contents, for all practical purposes why should he go further than the *general* division of the regions? Is there any difference between pneumonia of the *Clavicular* and the *Supra-Clavicular* regions? We do not mean to infer that Prof. Flint is the only author who has indulged in this seeming-luxury of testing the ductility (if we may be allowed the term) of his text. It is one of the growing evils of this book-making age. We have long thought that the beautiful and fascinating study of auscultation and percussion was lapsing into a state of scientific (?) mysticism, which was depriving it of its true interest and intrinsic value to the profession. Almost every man who writes a treatise on this subject, give us some new *bruit*, *râle* or *rhoncus*, or some extremely delicate *souffle*, which enables him to speak or write volumes, yet which is as difficult of detection as it is delicate, and means nothing when it is detected. When we attended the daily clinical lectures of Gerhard and Pepper, in the Pennsylvania Hospital, and witnessed the almost unerring certainty with which they diagnosticated pulmonary or cardiac disease — as proven by the favorable result of treatment, or the examination of the cadaver — physical exploration seemed the clearest and most satisfactory of all our studies; now it is so mystified and surrounded with rubbish, that it begins to be a bugbear to young men.

These remarks are not wholly applicable to Prof. F.; for if there be an honest and zealous medical man in our land, we believe he is one, and we think that he is rather amenable to the charge of being a slave to fashion than a reckless innovator. We regret to have to say one word in other than a commendatory spirit of the work of one for whom we entertain such profound respect as we do for the author; but we think the book contains defects such as we have pointed out, and that they detract from its value to either the practitioner or the student.

The mechanical execution of the work is unexceptionable, and reflects great credit on its well known publishers.

THE CAUSES AND CURATIVE TREATMENT OF STERILITY, WITH A PRELIMINARY STATEMENT OF THE PHYSIOLOGY OF GENERATION—*By Augustus K. Gardner, M. D.* (DeWitt & Davenport, New York.)—A book with a pretty cover, printed on fine paper, and executed in the best style of the typographic art. But this is all we can say in the way of commendation. There is nothing new in its pages except the coarse style

of the author, which mars even such portions of the book as might have otherwise rendered it valuable. The author has not studied his grammar very carefully, and on this account his meaning is sometimes obscure; but that is probably his misfortune.

While we cannot praise the work, for the above-mentioned reasons, we are by no means disposed to go quite so far as a Northern confrere, and frown upon even the frontispiece. We are strangers to Dr. G., yet we cannot refrain from expressing the opinion that this Northern reviewer has indulged in hypercriticism; indeed, it looks as if there was some private pique to gratify. How the reviewer can find anything more shocking to his modesty in Dr. G.'s frontispiece than he has repeatedly found in Ramsbotham, Maygrier, etc., we are at a loss to conceive. Indeed, if we are not greatly mistaken, we have seen just such a plate as Dr. G.'s before. We are disgusted with the latter portion of paragraph 2, page 115, but we contend for the legitimacy of the frontispiece.

BOOKS AND PAMPHLETS RECEIVED.—The Causes and Curative Treatment of Sterility, with a Preliminary Statement of the Physiology of Generation. By A. K. Gardner, A. M., M. D., etc. : DeWitt & Davenport, publishers, New York. Through B. M. Norman, Canal street.

A Practical Treatise on the Diseases of the Testis, and of the Spermatie Cord and Scrotum. By J. P. Curling, F. R. S., Surgeon of the London Hospital, etc. Second American, from second English Edition. From Blanchard & Lea, through T. L. White, Canal street.

The Mutual Responsibilities of Physicians and the Community, being an Address to the Graduating Class of the Medical College of the University of Michigan, delivered March 27th, 1856. By Henry P. Tappan, D. D., L. L. D., etc.

Constitution, By-Laws and Code of Ethics of the North Mississippi Medical Society. Adopted, May, 1856. It gives us pleasure to acknowledge the receipt of this pamphlet. We congratulate our North Mississippi brethren on this evidence of their unanimity and professional zeal, and trust that it will not be very long ere we receive a copy of their Transactions.

History of the Ligature Applied to the Brachio-Cephalic Artery; with Statistics of the Operation. By Paul F. Eve, M. D. From the Author.

United States Magazine. J. M. Emerson & Co., New York, No. 1, Vol. 3. We exchange with pleasure.

A Catalogue of all the Graduates of the Jefferson Medical College, of Philadelphia, with Announcements for 1856-'57.

OBITUARY.—Died, on the 21st inst., Josiah Hale, M. D., a native of Franklin county, Va., and for upwards of thirty years a resident of Louisiana. Dr. Hale lived many years in the town of Alexandria, on Red River, where he was highly respected for his moral worth and professional attainments. In the winter of 1849--50, he removed to the city of New Orleans, and was elected first President of the State Medical Society. In 1853, he was chosen first President of the New Orleans Academy of Sciences. These honors, literally thrust upon him, bear testimony to the high estimation of his professional brethren. Dr. Hale had paid special attention to botany, and his name has doubtless been made familiar to American writers in that department of science by his valuable contributions to the periodicals of the day. During his residence in this city he was nearly always one of the visiting physicians of the Charity Hospital, and was scrupulously attentive to the incumbent duties. In the memorable epidemic of 1853, he volunteered his professional services to the Howard Association, and continued his ministration to the afflicted poor with zeal and energy until he and his family were prostrated with yellow fever.

During the terrible epidemic of yellow fever at the village of Canton, Miss., last year, which in a short time prostrated every physician in the place, and killed more than half of them, a call was made on New Orleans for medical aid, and Dr. Hale was one of the first to respond. He remained there until the pestilence disappeared, ministering alike to the rich and poor, and with so much satisfaction to the survivors that he was urgently solicited to remove and settle there. This he did in November last, and was progressing under the most favorable prospects, when he discovered the first symptoms of heart disease. He recognized the warning with melancholy calmness, and told his wife that he should probably live but a short time. His disease advanced steadily, and by the middle of May he found himself unable to attend to practice. He then came back to New Orleans in quest of medical aid, and received every attention that could be bestowed—but all in vain. He gradually declined in spite of all that

could be done for him, and calmly sank to rest on the day above mentioned. His illness was long and painful, but no mortal ever bore such suffering with more patience and fortitude.

The closing scene of this good man's life was a practical illustration of the sentiment conveyed in the following lines, by one of our best American poets:—

“So live, that when thy summons comes to join
The immortal caravan, which moves
To that mysterious realm where each shall take
His chamber in the silent halls of death,
Thou go not, like the quarry slave at night,
Scourged to his dungeon; but sustained and soothed
By an unfaltering trust, approach thy grave,
Like one who wraps the drapery of his couch
About him, and lies down to pleasant dreams.”

E. D. F.

PROFESSORIAL RESIGNATIONS AND APPOINTMENTS.—Prof. Gross has accepted the Chair of Surgery in the Jefferson Medical College. Prof. Austin Flint has resigned the Chair of Theory and Practice in the University of Louisville, and has accepted that of Clinical Medicine and Pathology in the University of Buffalo. Dr. Rogers has been transferred to the Chair vacated by Professor Flint, in Louisville, and the Chair of Materia Medica in this school has been given to Dr. R. J. Breckenridge. Dr. T. G. Richardson has resigned the Demonstratorship of Anatomy in the University of Louisville, and Dr. Archie Cook, late Professor of Anatomy in the Kentucky School of Medicine, has taken his place. “The Kentucky School of Medicine has lost, by resignation, Dr. Lawson, Dr. Breckenridge and Dr. Cook, and gained Dr. T. S. Bell and Dr. Marshall, of Louisville.” Dr. Ackley has resigned the Chair of Surgery in the Cleveland Medical College. Dr. Edward M. Moore, of Rochester, has been appointed Professor of Surgical Anatomy and Surgical Pathology in the University of Buffalo.

LIST OF SUBSCRIBERS WHO HAVE PAID TO JULY 25TH.—Dr. J. A. Richardson, on account, 1856, \$3; Amzi Martin, 1856, \$5; H. D. Baldwin, 1856, \$5; J. T. Scott, 1854, '55, '56, \$11; J. N. Allison, 1855, '56, \$8; A. Donnaud, 1854, '55, '56, \$11; T. Meux, 1856, \$5; J. Gros-sart, 1856, \$5; J. C. Wederstrandt, 1856, \$5; W. B. Lindsay, 1856, \$5; Goodall, 1856, \$5; A. Greig, 1855, \$3; A. Thibaut, 1856, \$5; Marcus Breckenridge, 1856, \$5; R. B. Scott, 1854, '55, '56, \$11; T. O. Starke, 1855, '56, \$8.

GRADUATES OF THE MEDICAL COLLEGES—1856.—Jefferson Medical College, 215; University of Pennsylvania, 140; University of New York, 98; University of Nashville, 85; Medical College of South Carolina, 85; Medical College of Georgia, 73; University of Louisiana, 65; University of Louisville, 61; St. Louis Medical College, 50; Rush Medical College, 42; College of Physicians and Surgeons, 40; Cleveland Medical College, 38; Pennsylvania Medical College, 37; New York Medical College, 35; University of Michigan, 30; University of Missouri, 28; Massachusetts Medical College, 28; Philadelphia College of Medicine, 21; Sterling Medical College, 20; Miami Medical College, 18; Medical College of Ohio, 17; Dartmouth Medical College, 15; Medical College at Yale, 13; Medical College at Savannah, 12; Memphis Medical College, 11; Transylvania University, 11; Oglethorpe Medical College, 8—making a total in 27 Colleges of 1,396.

HEALTH OF OUR CITY.—Under this head we have only to renew our congratulations to the community. Since our last issue the weekly mortality has been declining, and we have not even been threatened with a visit from Yellow Jack. We have kept a diligent look-out, but have not yet been able to trace up a genuine case. The fact is, the Doctors are having a real holiday. Some few are grumbling, of course, because they and their horses are growing stiff for the want of a little exercise; but all know the great good that must result from the occurrence of one or more healthy summers here, and even the grumblers are somewhat cheered by the consequent future prospects.

REPORT OF DEATHS IN THE CITY OF NEW ORLEANS, from the 29th day of June to the 21st day of July, 1856:

Men, 123; Women, 83; Boys, 127; Girls, 104—Total, 459.

Adults, 206; Children, 231; Males, 250; Females, 187; sex not stated, 22.

Abscess, 1; Apoplexy, 14; Bleeding 1; Diseases of Bowels, 1; Bronchitis, 2; Cancer, 3; Catarrh, 1; Casualties, 1; Cholera, 1; Cholera Infantum, 16; Cholera Morbus, 1; Compression of Brain, 2; Congestion of Brain, 11; Congestion of Lungs, 2; Consumption, 41; Convulsions, Adult, 4; do. Infantile, 24; do. Puerperal, 2; Cramps, 3; Croup, 3; Debility, Adult, 5; do. Infantile, 4; Delirium Tremens, 10; Diarrhea, 27; Dropsy, 7; Dropsy in the Head, 2; Drowned, 11; Dysentery, 30;

Enlargement of Heart, 2; Enlargement of Liver, 1; Enteritis, 15; Epilepsy, 2; Erysipelas, 1; Fever, 1; Bilious do. 1; Congestive do. 13; Hectic do. 3; Puerperal do. 4; Remittent do. 3; Scarlet do. 2; Typhoid do. 13; Typhus do. 3; Hooping-Cough, 7; Inflammation of Brain, 5; do. of Liver, 1; do. of Lungs, 7; do. of Stomach, 4; Insanity, 1; Intemperance, 2; Jaundice, 1; Lightning, 2; Lock-jaw, 15; Lues Venerea, 2; Marasmus, Adult, 3; do. Infantile, 21; Measles, 5; Meningitis, 5; Mortification, 2; Old Age, 4; Parotitis, 1; Peritonitis, 2; Parturition, difficult, 1; Pleurisy, 1; Premature Birth, 2; Rheumatism, 2; Still-born, 17; Suicide 2; Sun-stroke, 5; Teething, 23; Unknown, 3; not stated, 11—Total, 459.

Recapitulation.—Zymotic, 133; Nervous System, 87; Respiratory system, 62; Digestive system, 65; Circulatory system, 10; Locomotive system, 2; Generative system, 9; Sporadic, 20; External Causes, 28; not specified, 39—Total, 459.

Ages.—Under one year, 119; one to two years, 63; two to five years, 35; five to ten years, 21; ten to fifteen years, 4; fifteen to twenty years, 5; twenty to twenty-five years, 24; twenty-five to thirty years, 35; thirty to forty years, 62; forty to fifty years, 34; fifty to sixty years, 18; sixty to seventy years, 9; seventy to eighty years, 6; eighty to ninety years, 4; ninety to one hundred, 1; unknown, 19—Total, 459.

Nativities.—Africa, 1; England, 7; France, 12; Germany, 34; Holland, 1; Ireland, 40; Portugal, 2; South America, 1; Spain, 5; Switzerland, 2; United States, 153; unknown, 51; West Indies, 1; not stated, 149—Total, 459.

It will be perceived that we have commenced the publication of a more systematic and comprehensive mortuary record. Through the exertions of the highly efficient President of the Board of Health, Dr. A. F. Axson, it is now incumbent on the Secretary to keep the most accurate records possible, and the latter gentleman, ever zealous and attentive to the duties devolving on him, is making every exertion to systematize all data furnished the office.

All medical men must readily acknowledge the importance of this movement, and, taking it for granted that they do, we take the liberty of calling the attention of our city brethren to some of their short-comings. The very same "first glance" which will make the imperfections of the foregoing record evident, will elicit the tacit acknowledgement that the

fault lies almost wholly within themselves. For instance: Why say on the certificate that a patient died of "Bleeding," when Hemorrhage would have been a better word, and neither are of any real value unless we can know the source and, if possible, the cause? Why say "Bronchitis," instead of putting the word Acute, or Chronic, as the case may be, before it? Why say "Cancer," without giving the location of the disease? Why say "Lock-jaw," when it would be so easy to use a better word, and to be so much more explicit?

These are but a few of the blemishes which are to be found on every week's record, and surely they will be no very flattering evidence abroad of our proficiency or zeal. That the certificates of quacks and other pretenders will ever tend to deface the records in some measure, there is no doubt, but it behoves us to neutralize this evil as fully as possible by the willing performance of our duty.

To carry out the well conceived plan of the Board of Health, the Secretary is furnished with printed forms of certificates for the use of physicians, and we are requested by this polite and attentive officer to say, that he is prepared to supply all who will favor him with a call. Surely no man will object to being thus aided in his duties to the public.

CHARITY HOSPITAL REPORT.—June, 1856.

Admitted.....	754
Discharged.....	701
Died.....	76

JULY, 1856.—From the 1st to the 25th inclusively.

Admitted.....	669
Discharged.....	532
Died.....	78
Remaining.....	488

EXCERPTA.

ON WIRE SPLINTS—*By J. C. Nott, M. D., of Mobile, Ala.*—I have been using, in fractures of the extremities, wire splints, which I do not recollect to have seen recommended elsewhere, and which possess manifest advantages over those of any other material heretofore used.

The objections to wood, pasteboard, gutta percha and other solid materials, are, that they keep the inflamed parts too warm, and do not admit the application of cold water.

The "wove wire" is the lightest material out of which a firm splint can be made, and being malleable, may be moulded with the fingers to the shape of the limb.

Being porous, no obstruction is offered to the entrance of cold lotions, and the parts may be subjected, if necessary, to a stream of water.

The material out of which these splints are made is easily procured and easily cut into proper shapes. The hardware stores all keep what is called "wove wire," of various qualities, coarse and fine, and with a pair of strong shears it is readily cut into any form we may desire. The edges should be turned over, to prevent the wires from sticking into the flesh and to give more strength to the splint. It is well, also, to give them a coat of asphaltum or other varnish, to keep them from rusting. The material does not cost more than from fifty cents to one dollar a yard.

Suppose, for example, we have a common fracture of the bones of the leg. Two splints are selected, and being well padded with lint or old soft rags, they are applied on each side of the leg, and nicely moulded to its shape. A bandage is then rolled from the toes up to the knee over it, or, what is more simple, pieces of bandage are tied around at short spaces from toes to knee. We at once have a solid fixture, having all the advantages and none of the inconveniences of the starch bandage, and the patient may move the limb about as he pleases, or get up on crutches.

ON JUGULAR VENESECTION IN ASPHYXIA, ANATOMICALLY AND EXPERIMENTALLY CONSIDERED.—A paper on this subject was read before the Medico-Chirurgical Society of Edinburgh (March 19th, 1856) by Dr. Struthers. The object of the paper, which was illustrated by preparations and drawings of the valves in the cervical veins of the human subject, was to ascertain whether distension of the right side of the heart could be relieved by opening the external jugular vein in the human subject. The experiments of Drs. John Reid, Cormack and Lonsdale, had satisfactorily shown that, in the lower animals, (dogs, cats and rabbits,) the right side of the heart could be thus disorged so as to restore its action, which had been arrested by a simple mechanical cause, over distension. He considered that the indication of restoring the heart's action by jugular regurgitation, had not received that attention which Dr. Reid's

suggestive paper demanded for it. Dr. Struthers described the anatomy of valves which he had found in the cervical veins, as well as those usually alluded to as present in the external jugular. A pair of valves at or within the mouth of the internal jugular vein; a pair in the subclavian vein, immediately external to the point of union with the external jugular; a pair at or within the mouth of the external jugular; a second pair in the course of the external jugular, at the upper end of its sinus, or large portion, about $1\frac{1}{2}$ inch above the clavicle, and various lesser valves at the mouths or within the tributaries of the external jugular. The varieties and relative position of the two portions of each pair of valves was described, as he had found them in numerous careful examinations. With the view of ascertaining whether regurgitation could take place notwithstanding these valves, Dr. S. performed a series of experiments on the dead subject. A pipe was fixed in the femoral vein, and tepid water thrown freely upwards. The general result was, that the external and other jugular veins very soon became distended, and that when the lancet opening was made, at about an inch above the clavicle, the fluid regurgitated freely. At first a jet came, emptying the distended sinus, and then it continued to flow, never in a jet, but in an active stream across the neck, escaping by the wound with a wriggling motion, evidently due to the obstruction offered by the valve which it had overcome. Care was taken to ascertain that the fluid came by regurgitation, not from above; but if allowed, it also came freely from above, having ascended by the internal jugular. The introduction of a probe so as to hold aside the guardian valve of the external jugular, did not much accelerate the regurgitating flow. When the catheter was introduced, however, the fluid came very freely by it—as freely as from a distended bladder. It is easy to introduce a common male catheter to the vena cava or right auricle, by directing it backwards and inwards, as well as downwards, from the point of venesection. But as soon as the catheter has entered the subclavian vein, the fluid comes as easy as when it is pushed farther. As soon as the point of the catheter is withdrawn into the external jugular, the fluid ceases to come by it. In one subject the fluid could not be made to regurgitate. This was at the time attributed to the circumstance that the cranium had been opened for the removal of the brain, the fluid pouring out by the cranial sinuses; but, on dissection, two pairs of valves were found in the external jugular below the lancet opening, besides the pair above it, as usual. Regurgitation seems to be prevented by two pairs of

valves, though one pair may be overcome. In these experiments the veins of the arm did not become distended, and no regurgitation took place from a lancet opening in the axillary vein, although afterwards it was seen that only two pair of valves had stood in the way between the heart and the opening. By "pair," Dr. S. meant the two separate portions which act together as one valve. He (Dr. S.) drew the following conclusions: 1. No venesection can be of any use in asphyxia except in the neck, on the principle of regurgitation; which, however, may also relieve congestion of the head. 2. That, besides warmth and friction, and (the most simple and effectual of all means) continued artificial respiration by alternate compression and relaxation of the sides of the chest, jugular venesection should be tried. 3. With reference to Dr. M. Hall's recent recommendation of the prone position, to prevent the tongue falling back and closing the glottis, the question occurred—Does the tongue fall back, under passive circumstances, in the supine position? Is not the closing of the superior glottis, under all circumstances, a muscular act—both the carrying down and back of the tongue and epiglottis, and the lifting upwards and forwards of the larynx? The mouth, however, should be cleared of frothy mucus. 4. That to obviate the evident risk of entrance of air into the veins, the wound should be closed as soon as regurgitation is about to cease, and artificial respiration be then commenced; the jugular venesection having been performed as early as possible.—*Edinburgh Medical Journal*, May, 1856.

ESCAPE OF GREAT VESSELS, BY THEIR ELASTICITY, FROM BALLS—*By G. H. B. Macleod.*—There is no circumstance in gunshot wounds more striking than the wonderful way in which the great vessels, by their elasticity, escape from the ball in its transit. Thus bullets innocuously traversed parts where one would suppose a pin's head could not be placed without wounding a vessel. True, the fact that such cases remain to be seen, results from the vessel not having been opened, and we do not know in how many cases the result was not so fortunate; but still, viewed merely as happy escapes, they are curious and interesting. In the course of the femoral vessels, this phenomenon is particularly common. Through the axilla, through the neck, out and in behind the angles of the jaw, between the bones of the forearm and leg, balls of every size often take their passage without harm to the vessels. Take the following cases as examples: A soldier was wounded at Inkermann by a ball which entered

through the right cheek and escaped behind the angle of the left jaw, so tearing the parts that the great vessels were plainly visible in the wound. Three weeks after he was discharged without having had a bad symptom. A soldier of the Buffs was struck in June last, when in the trenches, by a rifle ball, in the nape of the neck. It passed forward round the right side of the neck, up under the angle of the inferior maxilla, fractured the superior maxillary and malar bones, destroyed the eye, and escaping killed another man who was sitting beside him. This man made a recovery without a bad symptom.

A French soldier at the Alma was struck obliquely by a rifle ball, near but external to the right nipple; the ball passed seemingly right through the vessels and nerves in the axilla, and escaped behind. His cure was rapid and uninterrupted. Endless numbers of similar cases may be seen in any military hospital.—*Ibid.*

NEW METHOD OF TREATING PHAGEDÆNA.—Mr. Cock has recently been trying, in Guy's Hospital, a plan of treating phagedænic ulcers by constant irrigation. The method is, to have the sore well exposed, and the affected limb placed on some waterproof material; a reservoir above the bed is then filled with luke-warm water, and by means of an elastic tube a stream is kept continually flowing over the surface of the sore. By this means all particles of discharge, etc., are washed away as soon as formed, and the ulcer assumes the clean, pale appearance of a piece of meat which has been long soaked. In all the cases in which it has been practicable to employ the irrigation efficiently, a speedy arrest of morbid action has been secured, and the number has included several in which the disease was extensive and severe. The theory of the treatment is, that phagedænic action is a process of local contagion—the *materies morbi* by which the ulcer spreads being its own pus. Admitting this supposition—which there is every reason for doing—to be true, the object to be kept in view in curative measures is either to decompose or to remove the local virus. This end is accomplished somewhat clumsily by such remedies as the nitric acid, which, unless so freely used as not only to char up all the fluid matters, but to destroy the whole surface of the ulcer to some depth, fails to prevent a recurrence. Mr. Cock's plan of subjecting the ulcer to a perpetual washing attempts the accomplishment of the same end by a more simple and direct method. It involves no pain to the patient, and does not destroy any healthy tissues. Its one disadvantage seems to be,

that, excepting on the extremities, its use would be attended with some inconvenience, from the difficulty of preventing the water from running into the patient's bed. Should, however, further trials confirm the very favorable opinion which has been formed at Guy's as to its value, these difficulties might, no doubt, be surmounted by the contrivance of suitable apparatus. The directions as to temperature of the water are, that it should be as warm as comfortable to the feelings of the patient; and, as a preventive of smell, Mr. Cock advises the addition of a small quantity of the chloride of lime or of soda.—*Med. Times and Gaz.*, April 12, 1856.

ON THE DEPTH AT WHICH THE PLACENTA IS IMPLANTED IN THE UTERUS.—Dr. Von Ritgen has given an elaborate and interesting illustration of the various seats of attachment of the placenta, other than to the neck of the womb. He refers to the method discovered in recent times of determining after delivery the height at which the placenta was attached, by measuring the distance of the rent in the membranes made by the passage of the liquor amnii and foetus from the margin of the placenta.

The bag burst at the edge of the placenta in twenty-two cases; it burst at one inch from the edge in eight cases; between one and two inches in twelve cases; two inches in seven cases; between two and three inches in sixteen cases; three inches in five cases; between three and four inches in four cases; four inches in six cases; between four and five inches in eight cases; five inches in three cases; six inches in six cases, and eight inches in three cases.

It follows, that since the distance of the edge of the placenta from the rent is absolutely decisive as to the distance of the edge of the placenta from the os uteri, that the edge of the placenta rested on the os uteri in twenty-two cases, and was within one inch in thirty-two cases, within two inches in forty-nine cases, and so on.

This proves the placenta has commonly a much lower seat than has hitherto been believed.

It also appears that smallness of the ovum has a closer relation to lower seat of the placenta than is to be accounted for by the simple diminution of all the dimensions of the uterus.—*Brit. and For. Med. Chirurg. Rev.*, April, 1856, from *Monatsschr. für Geburtsh.*, Oct., 1855.

STATISTICS OF DELIRIUM TREMENS—By John Macpherson, M. D.—(*Indian Annals of Medical Science*, October, 1855.)—Dr. Macpherson

draws attention to the great discrepancy prevailing in the statistics of writers on delirium tremens, with regard both to its frequency in both sexes, and to the mortality of the disease. He attributes this chiefly to a want of due classification—ebrietas or drunkenness being returned as delirium tremens. Calmiel states the rate of mortality at 5 per cent., Bougard at 19 per cent. Colonel Tulloch, in his report for 1853, gives the following per centages of mortality :

Great Britain, infantry.....	17.6
“ cavalry.....	13.8
Bermuda.....	15.
Canada.....	7.94
Gibraltar.....	13.6
Malta.....	8.8
Nova Scotia.....	9.1

With regard to Bengal, the author says: “I believe I should not be far wrong in stating, that an army of about 18,000 strong sends more than 600 cases of ebrietas into the hospital in the year, (slight cases are not sent) and that although the number of cases of delirium tremens is reduced by more than one-half, yet even now it rarely falls short of 150; and that the proportion in Bombay and Madras is not very different.”

A return of admissions and deaths from delirium tremens and ebrietas in the General Hospital in Calcutta, from 1848 to 1852, and another of admissions and deaths from the same cause in the Medical College Hospital, during 1851-'52-'53, is given. The following are some of the more important results offered by the analysis of these cases :

That delirium tremens occurs in women and men in the proportion of 1 to 25; but that this difference is due to the difference of habits rather than of sex.

That in regard to age, the ratio is as follows :

	Cases.	Deaths.	Per cent. of deaths.
Ages from 20 to 25.....	34.....	4.....	9.1
“ 25 to 30.....	66.....	16.....	24.4
“ 30 to 35.....	48.....	11.....	22.9
“ 35 to 40.....	76.....	7.....	9.2
“ 40 to 45.....	62.....	6.....	9.6
“ 45 to 50.....	23.....	4.....	17.3
“ 50 to 60.....	7.....	0.....	
“ 60 to 65.....	5.....	1.....	

The greatest mortality is between the ages of twenty-five to forty, which is confirmed by the analysis of another series of sixty-four fatal cases. The per centage shows that there is no uniformity in the proportion of deaths to the number of cases.

There is no evidence to show that the season of the year exerts a definite influence on the occurrence of the disease, whereas the mortality very palpably varies with the temperature—it being more than double in the eight hot, than in the four cold months.

The apparent cause of death was as follows :

No. of Cases.

33 by exhaustion (often with coma.)

18 by coma.

11 by fits (sometimes apoplectic, called sometimes epileptic.)

1 died on night stool.

1 found dead in bed.

Convulsions occurred in at least twenty of the above cases. One distinct case of paroxysmal opisthotonos occurred in a musician, who, during the intervals, was able to sit up and whistle tunes.

The post mortem appearances of forty-five cases are not given with that statistical accuracy which we should desire ; but they afford a confirmation to the received opinions of pathologists :

“As to the general frequency of the morbid changes, it may be observed, that the most constant were the red patches in the stomach ; next, the opalescent appearance of the arachnoid ; next, serous effusion ; next, change of liver ; next, of heart ; next, of spleen ; and lastly, of kidneys ; but the last organs do not appear to have been always examined.”

MENSTRUATION—1. *On the Period of Puberty in the Negro Race*—By Robert Clarke, Esq.—(Journal of the Statistical Society, March, 1856.)

2. *Early Case of Menstruation*—By J. O. Bronson, M. D.—(American Medical Monthly, September, 1856.)

1. Mr. Robert Clarke says, “With respect to the period of puberty in the Negroes, all my inquiries have tended to show that it commences about the age of ten or twelve years. Girls who have arrived at this age, and much beyond it, may be occasionally observed walking the streets (of Sierra Leone) naked, with the exception of a long strip of white calico, which hangs before and behind below the knee, from a circlet or zone of beads which surrounds the loins, and which scarcely covers the genital organs. These streamers are the signals of the girl’s being marriageable. During the presence of the catamenia they are deemed unclean, when a colored strip of calico is instituted to intimate the presence of the secretion.”

2. We cite the facts observed in the case of Dr. Bronson, reported as one of early menstruation. The subject is named Phoebe Anne Baker, born the 19th of January, 1851, in Sing Sing, Westchester county, N. Y. At the age of ten months her menses appeared, accompanied by the usual signs and developments, and have continued with healthy regularity ever since. The girl is large for her age, with light-brown hair and complexion, and blue eyes. Her form is mature. Her mammae are prominent, the size of an orange; pelvis wide; and her pubis covered with hair. In fact, she is a woman in her physical, and a child in her mental developments. She is quite unconscious of her condition. The catamenial discharge is healthy in color, character, and quantity, and not accompanied with pain. Nothing concerning the parents, or otherwise, was elicited, tending to throw light upon the causes of this early establishment of the female function. This case, says Dr. Bronson, cannot be classed with those of disease simulating menstruation, but is a *bona fide* case of infantile puberty.

ON DETECTION OF STRYCHNIA—By Marshall Hall, M. D.—The detection of strychnia as a poison is, at this moment, of deep public interest.

When the chemical test fails, there remains, I think, another—the physiological. Having long studied the effects of strychnia on the animal economy, (I have sent two papers on this subject to the Institute of France,*) I am persuaded that these effects on the most excitable of the animal species are at once the most delicate and specific tests of this poison.

I have just performed two experiments, and only two, for want of materials for more.

I requested Mr. Lloyd Bullock, of Hanover street, to dissolve one part of the acetate of strychnia in one thousand parts of distilled water, adding a drop or two of acetic acid.

I then took a frog, and having added to one ounce of water 1-100th part of a grain of the acetate of strychnia, placed the frog in this dilute solution. No effect having been produced, 1-100th of a grain of the acetate was carefully added. This having produced no effect, in another hour another 1-100th of a grain of the acetate was again added, making the 3-100ths, or about the thirty-third part of a grain. In a few minutes the frog became violently tetanic, and though taken out and washed, died in course of the night.

* See the Comptes Rendus for June, 1847, and February, 1853.

I thus detected, in the most indubitable manner, one thirty-third part of a grain of the acetate of strychnia. It appeared to me that, had more time been given to the experiment, a much minuter quantity would be detectable.

I placed the second† frog in one ounce of distilled water, to which I had added the 1-200th part of a grain of the acetate of strychnia. At the end of the first, the second and the third hours, other similar additions were made, no symptoms of strychnism having appeared. At the end of the fifth hour, the frog having been exposed to the action of 1-50th part of a grain of the acetate of strychnia, tetanus came on, and under the same circumstances of removal and washing, as in the former experiment proved fatal in its turn.

I thus detected 1-50th part of a grain of the poisonous salt by phenomena too vivid to admit of a moment's doubt; the animal, on the slightest touch, became seized with the most rigid general spasmodic, or, rather, tetanoid rigidity. And this phenomenon, alternating with perfect relaxation, was repeated again and again.

As the nerve and muscle of the frog's leg, properly prepared, have been very aptly designated as galvanoscopic, so the whole frog, properly employed, becomes strychnoscopic.

In cases of suspected poison from strychnia, the contents of the stomach and intestines, and the contents of the heart, blood-vessels, etc., must be severally and carefully evaporated and made to act on lively frogs just taken from the ponds or mud. I need scarcely say that, taken in winter, the frog will prove more strychnoscopic than in summer, in the early morning than in the evening.

The best mode of performing the experiment also remains to be discovered, with all its details and precautions, an inquiry into which I propose to enter shortly. Meantime, this note may not be without its utility.

P. S.—I have repeated my experiment. I placed one frog, fresh from the pools, in an ounce of water containing the 1-50th part of a grain of the acetate of strychnia; a second in the same quantity of water, containing the 1-66th, a third containing 1-100th, and a fourth containing 1-200th. All became tetanic in two or three hours, except the third, which was a female, (the others being males) which required a longer time.

The 1-200th part of a grain of the acetate of strychnia is, therefore, detectable by means of this test conferred by physiology

† These frogs were not fresh from the pools.

We now placed a male frog in 1-400th part of a grain of the acetate of strychnia, dissolved in six drachms of water. In three hours and a half it became violently tetanic.

The fresh frog is, therefore, at this season, strychnoscopic of 1-400th part of a grain of the acetate of strychnia, and probably to a much minuter quantity, which ulterior experiment must show.

In two other experiments the 1-500th and the 1-1000th of a grain of the acetate of strychnia were detected.—*Lancet*.

COMPRESSION OF THE BRAIN FROM EFFUSION—*Trepanning*—*Recovery*—*Reported to the St. Joseph Medical Society, April 1, 1856*—By G. C. Catlett, M. D.—On the 20th of December, 1854, Mr. W——, while engaged in a fight, received on his head a severe blow with a stick, that would have measured at least two inches and a half in circumference at the largest extremity. The blow terminated the affray, having prostrated W——. There soon followed syncope, nausea and vomiting. After recovering from these symptoms somewhat, he remounted his horse and rode three miles to his residence. On reaching home, he took his bed, complaining of great oppression and nausea. Soon vomiting re-occurred, and laborious and stertorous breathing rapidly supervened. His wife becoming alarmed, sent in haste for Dr. Knode—upon his arrival about four hours after the accident, and after ascertaining the character of the case, he had the late Dr. Sykes called. W—— received the stroke about 12 o'clock, M. When I arrived about six hours after, Drs. Knode and Sykes had cut down upon the skull, making a triangular incision through that portion of the scalp which had suffered from the blow, exposing a black and badly contused scalp. That portion of the parietal bone, from the temporal ridge to the inferior or squamous border, had received the force of the blow. There was no perceptible fracture of the external table. The patient was not expected to survive the night from the overwhelming compression of the brain. Trephining was immediately and carefully performed on the parietal bone near the temporal ridge. The internal table was not fractured. The trephining revealed a very large and dense clot of blood, measuring three-fourths of an inch thick, which must have proceeded from a rupture of one of the branches of the meningeal arteries. As much of the clot as could be removed was carefully taken away by my fingers and by the handle of a small spoon. The respiration became more frequent, and not so stertorous; the pulse more distinct and

full; iris capable of being slightly excited. In fact, the removal of the clot made a perceptible though unsatisfactory change in his condition.

The incisions in the scalp were retained open; warm, wet, and often repeated cloths were applied during the night to increase the fluidity of the effused blood, and to facilitate its exit from the cranium, and active cathartics administered. His pulse never indicated a want of depletion.

On the next day, the 21st, there was no very great change; still unconscious; obstinate constipation; whole nervous system dormant. He continued in this state two days, except that his bowels were freely evacuated in the mean time. He was kept on unstimulating and farinaceous diet.

The 24th—pupil now influenced by light; they still remain dilated. He talked incoherently; would attempt to answer questions, but would forget what was asked him; said a horse had kicked him, and could not recognize familiar faces. From this time, by strict attention to his bowels and regimen, and the continued application of cold cloths to his head, he slowly recovered from the dangerous compression under which he had been laboring.

Not anticipating any further difficulty, we thought nature would complete in her own time and in her own way the recovery. After some time had elapsed, (three or four weeks) unhealthy granulations sprung up from the edges of the wound or incisions in the scalp—they were suppressed.

A short time after that, the patient came to my office for advice in consequence of the great quantity of matter, as he said, that came from his wound. Upon examining it I found it to be a thin, pale, ichorous pus, and immediately suspected the cause. Guiding a pair of forceps upon the end of my finger, I introduced it into the trephine hole, and detecting a loose bone, I extracted a portion of both tables corresponding with the circle of the trephine hole. Upon further examination with a probe, I found the posterior and inferior portion of the parietal bone also carious and rough; the superior edge of the squamous portion of the temporal bone could be distinctly felt, the parietal bone having been separated from it. Upon consultation with Dr. Knobe, we determined to give the carious bonds time to be detached from the surrounding sound and living bones, before any attempt be made to remove them. About two months from this time, the dead bones having been completely detached and loose, by dividing it with a saw we removed a large portion of the posterior and inferior inner table of the parietal bone; the corresponding portion of the ex-

ternal table having been removed by suppuration. The portion of bone removed was an inch and a half wide by about two inches long. After the extraction of this bone the patient recovered his health rapidly.

Comment on the Case.—Mr. W—— is deeply indebted to the art of surgery, and also to the strength and vigor of his constitution; and last but not least, he is under the most lasting obligation to the system of absorbent vessels for their prompt and efficient action, in assisting in the removal of the effused blood and the carious bones.

ON THE POISONOUS PROPERTIES OF BRINE—*By M. Reynal*—(*L'Union Méd.*, p. 254, May, 1855.)—The brine obtained from the process of salting various kinds of meat and fish is used by the lower classes in France as a condiment in place of common salt, and by farriers as a remedy for the diseases of domestic animals. Instances of poisoning, however, from its use having been noted in Germany, M. Reynal proceeded to investigate its action, and from a series of experiments detailed, draws the following conclusions: 1. That three or four months after its preparation, it acquires poisonous properties. 2. That the mean poisonous dose for the horse is two litres; for the hog, half a litre; and for the dog, one to two déclitres. 3. That in less doses it produces vomiting in the dog and hog. 4. That the employment of this substance mixed with the food, continued for a certain time, even in small quantity, may be fatal. These facts are important, when it is recollected that smoked meats and sausages have sometimes exhibited poisonous properties.

PERIOD OF EXCLUSION OF PLACENTA.—Dr. Von Ritgen says that instructions were given in the hospital for many years not to remove a detached placenta without the express permission of the director. The reason was, to ascertain whether the leaving behind the detached placenta would cause mischief to the mother by absorption of the dead matter. This rule was followed for a time, so far as to allow the placenta to remain for several days, and until the foul smell became insupportable; but at a later period it was not carried to this extreme, after it was ascertained that no absorption of decomposing constituents of placenta ever took place, except in cases of fleshy growth of the placenta to the uterus.

Summarily expressed, the detached placenta remained fifty-two times, or in about one-half the cases, less than four hours in the uterus; and in the other half, between four and fourteen and a half hours.

The spontaneously completely detached placenta was removed artificially in three cases, on account of hemorrhage; in one case it was removed on account of spasmodic pains; in two cases, after operations. In all the rest, the placenta was removed on account of severe after-pains, heavy pressure of the vagina, difficulty of micturition, disturbance of rest and sleep.—*Brit. and For. Med. Chirurg. Review, April, 1856.*

EXPERIMENTAL PHYSIOLOGY—*By David R. Walton, M. D.*—Among the interesting lectures on Medical Science in Paris, none are pursued with more zeal and success than the several courses of Experimental Physiology.

M. Coste, at the College of France; M. Claude Bernard, at the same institution, and at the Sorbonne; M. Flourens, at the Garden of Plants; MM. Wurtz and Verneuil, at l'Ecole College de Médecine; M. Brown-Séquard, M. Béclard and M. Martin-Magron, at l'Ecole Pratique; M. Charles Robin, and others in private courses, each pursuing specialties, and all contributing to the discovery of elementary truths, are harmoniously developing the science of physiology.

A circumstance which promises the most valuable results is the surrender of preconceived theories opposed by legitimate experimentation; the unanimous pursuit of facts as individualities, and a natural arrangement of analogical facts; thus establishing doctrines and practice as spontaneous necessities—*i. e.*, doctrines flowing from demonstrated facts. This characteristic may be easily illustrated by stating what passed this day before the pupils of M. Brown-Séquard, late Professor of the Institutes of Medicine and of Medical Jurisprudence in the Medical College of Virginia. Transfusion of blood formed the subject of experimentation in his regular course this day. The Professor first showed a dog, into the jugular vein of which had been, the day before, injected a mixture of blood drawn from two pigeons and a rabbit. The good state of this animal, in which circulated the blood of distant species, formed a contrast with the results obtained in the experiments reported and the doctrines maintained by MM. Prevost and Dumas, who say the blood of a bird is poison if introduced into the vein of a mammal, and who maintain the incompatibility of the blood of different species. The following experiments show the grounds of error in said doctrine, and at the same time are suggestive of the true method of transfusion necessitated by dangerous hemorrhage.

It will be seen that it is the state or condition of the injected blood,

rather than the species of animal from which it is derived, that determines its poisonous effects.

M. Brown-Séquard commenced by injecting into the veins of animals their own blood, in different states. First experiment—blood was drawn from the right carotid of a dog, and as it flowed it was beaten by a feather brush to separate the fibrin and to oxygenate the liquid. A portion of this aerated blood was injected into the jugular vein of the same animal. At the expiration of an hour, more blood was taken from the dog, defibrinated and injected as before. This series was repeated eight times in six hours. The third abstraction was nearly devoid of fibrin, and the last five appeared to be destitute of any; but it was only when the blood had lost its power of being aerated, and when the black blood was injected, that fatal convulsions occurred.

In some animals, blood was drawn from the arteries, and in others from veins, and beaten from the commencement of the flowing till the same was injected into the veins of animals from which it had been drawn, or of animals of a different species. The injection of this aerated blood was not followed with fatal consequences, except in two instances, when it was found that air had entered the veins, and had been, as was supposed, the cause of death.

Finally, experiments were made by injecting into animals their own blood unoxygenated, which had been suffered to remain a few moments deprived of the contact of air, after it had been defibrinated—that is, the blood was first defibrinated, then placed in the syringe, and thus secluded from the air till its oxygen had combined with its carbon, and formed carbonic acid, rendering it black. The carbonated injection invariably produced convulsions and speedy death."

It is to be presumed that the doctrines of MM. Prevost and Dumas, concerning the transfusion of blood of different species, are formed from experiments made without due attention to aeration of the injected fluid. It is probable, also, that the general prejudice against transfusion of human blood as a remedy in case of dangerous hemorrhage has arisen in part from the neglect of this oxydation, which all experiments prove absolutely necessary. It is found that the injection of blood equal to one-tenth the quantity lost is the standard proportion required.

Full details of these experiments will be given in a work composed of comparative and analogous cases by the several experimenters of Paris.

PARIS, February 16, 1856.

LACERATION OF THE CORNEA OF BOTH EYES, DURING A CONVULSION.

Reported by J. W. MCKINNEY, M. D., of New Albany, Ill.—The following unusual case came under my observation recently, a brief outline of which I send you; and you are at liberty to dispose of it as you may think best.

The patient was a child, three years old, step-daughter to Robert Richey. For eight or ten days preceding my first visit, the child had suffered from tertian intermittent, of a mild form, scarcely attracting the attention of the parents—not sufficiently to resort to medication. On the day previous to my being called, it had a light chill, followed by an exacerbation, which passed off in a few hours, and in a short time it seemed as cheerful as usual.

Saturday Morning, April 19th, 1856.—I was summoned by the step-father to see the case, who stated, that the child, soon after waking from sleep in the morning, was attacked with convulsions. On visiting the patient, I found it lying on the bed with its head and shoulders elevated by means of pillows, and in a state of deep comma. The eyes were closed, pulse quick and frequent, breathing somewhat labored, head hot, while the general heat of the surface was little, if any, above that of the natural temperature. Slight spasmodic jerking of the upper extremities still were present, which readily subsided on the application of cold water to the head, with mustard drafts to the wrists and ankles.

There was nothing peculiar in the symptoms, beyond that of ordinary convulsions of children, to attract my attention, except the coma, which I thought to be of a deeper lethargic character than was usual in such cases. I accordingly ordered a continuation of refrigerants to the head and drafts to the extremities, so long as the head remained preternaturally hot; and prescribed a brisk cathartic of calomel, 10 grs.; turpentine, thirty drops; mixed with a dessert-spoonfull of castor oil; to be administered so soon as the patient was sufficiently recovered to swallow.

On the morning of the 20th, when again visiting the patient, I learned that the cathartic dose had been given, which acted free during the night, and that there had been no return of convulsions; but that the deep coma continued, and it was with difficulty the patient could be aroused so as to swallow anything when put in its mouth.

On raising the upper lids of the eyes, (which had been kept constantly closed since the convulsion the previous morning,) I discovered a laceration of the cornea of both eyes.

The lacerations were both transverse, pointing to the outer and inner canthus, and just below the lower border of the pupils, presenting smooth edges as though they had been cut by a sharp instrument. The rent in the left eye, extended entirely across the cornea; while that of the right, extended from the inner border of the cornea, or that next the greater canthus, only about two-thirds across its diameter, in the direction just stated.

The eyes were slightly flattened in front, from the escape of a portion of the aqueous humor through the rent, which imparted a dim contracted appearance to the sound portions of the cornea.

Acute inflammation of the conjunctiva of the left eye was set up, radiating from the two extreme points of the laceration.

Together with all this, there was complete paralysis of the left arm—an evidence of a more serious lesion in the brain and nerve centre. I stated to the parents my apprehensions of the existence of this serious lesion; while exhibiting to them the rent in the visual organs, which till now they were not aware of.

With a view to palliate and sustain for a time the already sinking energies, I prescribed calomel, 1 gr.; quinine, 2 grs.; every four hours, till six doses were given, provided the patient could be had to swallow: and ordered lead-water and laudanum to be applied to the eyes; blisters to the temples; volatile liniment to the back and along the spine; with cold water to the head, whenever the surface was preternaturally hot. This treatment was persevered in with such alterations as the condition of the patient seemed to suggest from time to time, but all to no permanent good. The little unfortunate sufferer continued gradually to sink into a deep and deeper lethargy, which ended in a final cessation of all the functions on the fourth day from the convulsive struggle.

A few hours previous to death, the remaining portion of the aqueous humor of the left eye flowed out through the rent in the cornea.

I sought a *post-mortem* examination of the brain, but did not obtain permission, which I very much regret.

ON NICOTIN—By Dr. Leonides Van Praag—(Virchow's Archiv für Path. Anat. und für Klin. Med., Band viii. Heft 1, p. 56.)—From the experiments upon the action of this principle on mammalia, birds, frogs, and fishes, Dr. Van Praag concludes, first, that Stas and Albers were incorrect in asserting that nicotin, topically applied, operates as a caustic irri-

tant. The first effect of the poison upon the respiration is to increase its rapidity; but this increase is always followed by retardation, a fact which all former observers appear to have overlooked. This oversight seems attributable to the late period at which the retardation may take place. In one of Van Praag's experiments, the greatest fall in the frequency of respiration was observed at a period when all the other symptoms of poisoning had already ceased. In birds, there is indeed no retardation of breathing, but there is also no increase in its frequency. In twenty-one experiments, Van Praag on no one occasion observed increased rapidity of respiration without a subsequent retardation of it. Another important symptom, which was also observed by Bernard in his experiments, is a peculiar sibilus during respiration. This is attributed by Bernard to an over-active movement of the diaphragm; but Van Praag, with more probability, ascribes it to a contraction of some part of the air-passages, and suggests that its seat is the larynx, and that its muscles are thrown into a tetanic spasm similar to that which affects other parts of the muscular system. The pulse is increased in rapidity by nicotin, but at a later period becomes slow or imperceptible. As respects the operation of the poison on the muscular system, all observers agree. In cases which do not proceed too rapidly, it is marked by very severe and frequently alternating tonic and clonic spasms, which attack different parts of the body, either simultaneously or consecutively. Subsequently to the convulsive stage occurs great debility, connected either with partial muscular trembling, or with a lively tremor of the whole body. In cases which run a rapid course, the convulsive state is often altogether wanting, and adynamia sets in at once with tremor. In the most rapid cases of all, the muscles are not at all affected, and the animals sometimes die without any muscular movement. The influence of nicotin upon the sensory nerves varies; in some cases pain is experienced on its application; in others, in the larger number of instances, none. And so, too, with respect to sensibility. In some instances complete anæsthesia was induced, while in others no alteration of sensibility was traceable. In all cases the pupils were dilated at first, in some at a later period contracted. Salivation occurred in many instances. Purging and vomiting only occurred in those cases which recovered; but recovery may ensue without vomiting. The excretion of urine was in general not remarkably altered. The duration of the poisoning varied with its severity. When very severe, death has occurred immediately, without a single symptom. Van Praag is unable to state the largest dose of nicotin which would

not be dangerous to man ; at all events, a dose of half a grain is not fatal. He thus sums up the operation of nicotin : “The physiological operation of nicotin is at first stimulant, and at last depressing, not only to the circulation and respiration, but also to the nervous system. Accelerated circulation, increase of the respiratory movements, and excessive irritation of the muscular system, are the phenomena observed first ; the concluding symptoms are those of general depression, both of animal and organic life.” He recommends further investigation into the therapeutical applicability of nicotin to the treatment of the chronic skin disease and chronic inflammations.

ON THE USE OF ACONITE IN DISEASE—*By Dr. K. D. Schroff*—(Wochenblatt der Zeitsch. der Gesellschaft der Aerzte zu Wien, April, 1855.)—Dr. Schroff draws attention to two conclusions which he drew from his experiments with aconite—viz : 1. That both aconite and aconitin in adequate doses produces in healthy men and in rabbits increased secretion of urine. 2. That they act remarkably in depressing the action of the heart, either immediately, or after a brief increase of the heart's action. He now says that he has observed both these effects, also, on administering aconite in disease. He relates, by way of illustration, a case of pleurisy, in which he gave it with these results : appropriate treatment had already lessened the fever, and reduced the frequency of the pulse to 100 ; but the urine remained scanty. On the 13th July, he began to give one-sixth of a grain of the alcoholic extract of the root of the *aconitum neomontanum* four times a day. After the first six doses, the frequency of the pulse was reduced about six beats, and the urine became somewhat more abundant, lighter colored, and less thick. The dose was now increased to one-third of a grain four times a day, and then the quantity of urine became increased in a very remarkable degree, simultaneously with a diminution of all the morbid symptoms, while the pulse sank to 50. He considers the employment of aconite adapted for those cases in which it is desired to reduce the increased action of the heart, and mentions especially hypertrophy of the heart, aneurism of the aorta and larger arteries, and effusion into the pericardium, pleura, etc. The latter half of the paper is occupied by the re-assertion of the conclusions derived from his physiological experiments, on which doubt has been thrown by Van Praag. He maintains his conclusions on the ground chiefly of his experiments on the human subject and rabbits, while Van Praag made no experiments upon the former,

and only three upon the latter—in two of which death either occurred too rapidly for the diuretic effect to be observed, while in the third the dose given was smaller than Schroff has observed to produce this effect. In Schroff's experiments on the human subject and rabbits, large doses invariably operated in increasing the urine. In the former, the aconitin was given in doses of 0.02 to 0.05 grammes, while of the alcoholic extract 0.1 gramme was necessary. As to the reduction of the pulse, he asserts that, putting aside numerous experiments upon rabbits, this result occurred in twelve experiments made on the human subject with aconitin, and in thirty-eight experiments made with different preparations of various parts of the plant, and of three varieties of aconite. Large doses, however, are necessary. The effect was first observed with doses of 0.01 gramme of aconitin, and increased proportionally with the increase of the dose; 0.1 gramme of the alcoholic extract was necessary, and 0.2 gramme of the watery extract.

ON ACONITIN—By Dr. Leonides Van Praag—(Virchow's Archiv für Path. Anat. und Phy. Med., Band vii. Heft 3, 4, p. 438)—The alkaloid employed by Dr. Van Praag was obtained from Trommsdorf of Erfurt, who assured him of its perfect purity. It was prepared from the root of the blue variety of aconite indigenous to Switzerland. Experiments were made upon mammalia, birds, frogs, and fishes. From the examinations of the bodies of the poisoned animals after death, he saw no reason to conclude that aconitin produced gastro-enteritis; neither do his examinations lead him to place prominently forward, as Schroff has sought to do, a non-coagulable state of the blood as a symptom of poisoning by aconitin.

As to the physiological operation of aconitin, the general conclusions drawn are—"that aconitin exercises a retarding influence upon the respiration, a paralyzing operation upon the voluntary muscular system, and a depressing influence upon the brain." A retarding operation on the circulation was less marked than in the experiments of Schroff, and he concludes "that aconitin varies very greatly in the frequency with which it induces a reduction of the pulse." In general it produces dilatation of the pupils. Schroff says that at the commencement of the experiment the pupil exhibits great variability, and from time to time even becomes contracted, but that this at length always terminates in dilatation. Salivation and increased excretion of the urine must be regarded as amongst the less constant symptoms. Schroff describes as occurring in the human subject

a peculiar contractile, compressing, even painful sensation in the cheeks, over the jaws and forehead—in short, in the parts supplied by the trigeminous nerve. The only objective symptom observed by Van Praag that could be explained by such a sensation, was licking of the mouth, which was noticed in two cases. Where death occurred suddenly, it was by asphyxia; but in cases where it was deferred for some time, the animals died apparently from exhaustion. From one experiment made with the alcoholic extract of aconite, it was observed, that while for the most part its action agreed with that of the alkaloid, the symptoms referable to the stomach and bowels were more severe, and gastro-enteritis was moreover induced.

Judging from its physiological operation, Van Praag would consider aconitin adapted to those cases of delirium and mania, which proceed from over-irritation. Perhaps, also, he suggests, it might be tried in severe tonic or clonic spasms, tetanus, trismus, chorea, and pure spasmodic asthma. He sums up his observations on its therapeutical applicability: 1. Aconitin operates much in the same way as the alcoholic extract of aconite, and is therefore to be recommended in those diseases in which this remedy has been proved to be serviceable. 2. Aconitin is far preferable to any other preparation of aconite, on account of the unchangeable nature of the well prepared alkaloid, whereas, the activity of the aconite, and consequently of its ordinary preparations, varies with a number of circumstances—such as the locality in which it grows, the year, etc. 3. Aconitin is wanting in the undesirable acidity of the extract, and consequently, it exerts only the favorable operation of the extract without its injurious accessories.

NOTES ON TÆNIA, WITH FIFTY CASES TREATED BY THE OIL OF MALE FERN—*By Dr. Gull.*—This indigenous plant, the *lastræa filix mas* of modern botanists, has been known as a vermifuge since the days of Dioscorides. About five and twenty years ago, its efficacy was confirmed by Peschier, of Geneva, in several hundred cases; but it does not appear to have attracted much attention in this country until noticed by Dr. Christison in the *Edinburgh Monthly Journal* for 1852. In the following year a paper appeared, by Dr. Christison, in that journal, giving the results of his experience in upwards of twenty cases, in all of which, without exception, the worm was discharged after a single dose. Dr. Gull's cases amply confirm the previous statements of Peschier and Dr.

Christison, and show that an indigenous weed equals, if it does not surpass, in efficacy as a vermifuge, the vaunted koussou of Abyssinia, the turpentine of America, or the pomegranate of the continent. The preparation employed was the ethereal tincture of the rhizome, in doses of from one and a half to two drachms,* in a mucilaginous draught, occasionally followed by a saline laxative; which last, however, Dr. Gull does not consider necessary. In all Dr. Gull's fifty cases, as well as in many others treated by his colleagues, the remedy proved effectual. One patient had been laboring under the tape worm for eleven years, and had taken koussou six times. In twenty-five, or one-half of the cases, we find the period mentioned which intervened between the administration of the drug and the expulsion of the worm. The average of all the cases was five hours and three-fifths. In eight out of twenty cases the head of the worm was found. There can be no doubt, then, of the efficacy of the male fern as an anthelmintic; but we still want information as regards the permanency of the cure which it effects. In five only of Dr. Gull's cases are we informed that the cure was permanent, whereas in six cases we are told that the worm returned within a short period.—*Med Chirurg. Rev.*

REMOVAL OF THE TOE NAIL UNDER THE INFLUENCE OF CARBONIC ACID GAS—*By Dr. Finnell.*—At a late meeting of the New York Pathological Society, Dr. Finnell exhibited a toe nail which he had removed without pain, first benumbing its sensibility by the use of carbonic acid gas.

The toe was placed in a large-mouthed jar, and the gas generated. The vacant space between the toe and the jar was filled up with raw cotton. In fifteen minutes anæsthesia was produced, and the nail could be bent and twisted without causing the slightest pain. The numbness was found to have extended to the little toe and the sole of the foot.

IODINE INJECTIONS—In the annals of the Medical Society of Antwerp for 1855, Dr. Rul-Ogez records four cases in which he employed injections of iodine. In the first case, chronic ascites of twelve years' standing, and in the second, encysted dropsy of the ovary, the injections were probably deleterious. The peritonæal dropsy returned even after a third injection,

* The dose appears large. In Dr. Christison's cases it did not exceed twenty-four grains.

and the patient died suddenly four months subsequently. The patient with ovarian dropsy likewise underwent three injections, but the third was followed by symptoms of inflammation in the hypogastrium, which terminated fatally on the ninth day. The third case, abscess of the mamma, yielded readily to iodine injections. The fourth case was one of fistula in ano, which was radically cured at the end of five months by the persevering employment of injections of pure tincture of iodine, repeated every three days.

PATHOLOGICAL SOCIETY OF LONDON—*Mr. Arnott, President, in the Chair.*—Dr. Quain exhibited a specimen having reference to the practice of topical medication of the larynx, taken from a woman who died in the Hospital for Consumption, Brompton, of phthisis, and having the symptoms of tuberculous laryngitis. The parts were interesting, as showing that very extensive and severe disease need not necessarily extend beyond the reach of local applications. The ulceration had partially destroyed the epiglottis, was distinct around the glottis, and entering the larynx, had partially destroyed one of the chordæ vocales and injured the other. Beyond the last-named parts there was not a trace of mischief. Dr. Quain said that in such a case, if nitrate of silver or other local applications could be useful, there was no doubt whatever in his mind but that they could be directly applied in the form suggested by Dr. Horace Green; but it was not in such advanced cases that benefit could result from local or other applications. Still, in simple chronic laryngitis, in the earlier stages of the tuberculous form, in a congested, villous, or so-called relaxed state, and in certain irritable conditions of these parts, such as in the sore-throat of clergymen, he believed the application invaluable. He doubted the possibility of passing the sponge within the trachea in a vast number of cases, and he did not see the necessity for, or the advantage of, the practice; but he did believe in some few cases, in which the passage was large, and not so sensitive as in other cases, and the sponge small, it can and does pass through the chordæ vocales. This conclusion he arrived at from several observations on the living, and experiments on the dead body. Mr. Erichsen, who had lately written on the subject, was present, and he was sure the Society would be glad to have his opinion on the subject.

Mr. Erichsen did not differ much from Dr. Quain in his views on this subject. From observations on the living, and experiments on the dead subject, he believes the sponge can be applied above the vocal cords, but

doubts its application below them. If the cords, however, were destroyed by division, it is possible to push the sponge down, but when we hear that it is pushed down into the bronchi, he doubts it. As to its application above the vocal cords, it is a most useful remedy in those cases referred to by Dr. Quain.

Dr. Peacock agreed with the possibility of its application as stated by Dr. Quain. He differed from Dr. Quain in stating that it is of use in tuberculous cases. He had had pretty extensive experience of its use in those cases, and found that, instead of doing good, its application increased the irritation. In such cases he had quite abandoned its use, but in severe cases of laryngitis he used it with benefit and success.

Dr. Sibson observed that he passed a male catheter through the vocal cords in one instance, and the patient could breathe. The instrument remained there for one month. It was a case in which tracheotomy was proposed, and the patient was relieved.

Dr. Risdon Bennett said it was very common to introduce the probang into the upper part of the larynx, and he fully agreed with Dr. Peacock in what he said of its uselessness in tuberculous affections of the larynx. It is of benefit in cases of chronic laryngitis and syphilitic affections of the mouth, but the mischievous effects of its indiscriminate application were many and frequent.

Dr. O'Connor could bear testimony to the great mischief following the indiscriminate application of nitrate of silver in affections of the throat, and especially tuberculous forms. He had recently under his care two cases in which the practice had been resorted to for many months, great misery to the patients and aggravation of all their symptoms following. These cases were relieved by the decoction of bark and alum. The practice of topical medication of the larynx was, however, much older than any of the previous speakers appeared to be aware of. Sir Charles Bell used to employ it; the late Mr. Vance very extensively had recourse to it; and Dr. Stokes, in his work on "*Diseases of the Lungs*," mentions that Mr. Cusack, nearly thirty years ago, followed the practice with benefit. Of late it has been had recourse to as a sort of hobby in London, to the great injury of patients. He thought Dr. Green's book a dangerous guide for English practitioners; for, if the cases there represented are correct, they are not to be met with in the practice of medical men in this country. He (Dr. O'Connor) considers the very excellent treatise of Dr.

Ebenezer Watson, of Glasgow, a better guide. With regard to the tuberculous forms of laryngeal ulceration, he would depend more on constitutional treatment. In cases of chronic laryngitis and relaxed sore throat, he thought topical applications invaluable.

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 LINES ADDRESSED TO A SKULL.—The following beautiful verses were found in the skeleton case of St. Bartholomew's Hospital more than thirty years ago, placed there by some unknown hand. Breathing alike the true spirit of poetry and religion, we take pleasure in perpetuating the anonymous production :

Behold this ruin! 'twas a skull,
 Once of æthereal spirit full;
 This narrow cell was life's retreat,
 This space was thought's mysterious seat.
 What beauteous pictures filled this spot!
 What dreams of pleasure—long forgot!
 Nor love, nor joy, nor hope, nor fear,
 Has left one trace or record here.

Here, in this silent cavern, hung
 The ready, swift and tuneful tongue;
 If falsehood's honey it disdained,
 And where it could not praise, was chained;
 If bold in virtue's cause it spoke,
 And gentle concord never broke;
 That tuneful tongue shall plead for thee
 When death unveils eternity.

Beneath this mould'ring canopy
 Once shone the bright and busy eye;
 Yet start not at the dismal void!
 If social love that eye employed;
 If with no lawless fire it gleamed,
 But with the dew of kindness beamed—
 The eye shall be for ever bright,
 When stars and suns have lost their light.

Say! did those fingers delve the mine?
 Or with its envied rubies shine?
 To hew the rock, or wear the gem,
 Can nothing now avail to them;
 But if the page of truth they sought,
 And comfort to the mourner brought;
 These hands a richer meed shall claim,
 Than all that waits on wealth or fame.

Avails it whether bare or shod,
 These feet the path of duty trod?
 If from the bowers of mirth they fled,
 To soothe (?) affliction's humble bed,
 If grandeur's guilty bribe they spurned,
 And home to virtue's lap returned;
 These feet with angel's wings shall vie,
 And tread the palace of the sky!

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RESEARCHES ON STRYCHNINE.

By I. L. CRAWFORD, M. D., F. S. A., Professor of Chemistry and Medical Jurisprudence, New Orleans School of Medicine, etc., etc.

The recent trial in England, of poisoning by strychnine, has invested this alkaloid with a peculiar interest, and will probably cause its properties to be at length fully investigated. It is astonishing what misconceptions and mis-statements are to be found, even in the works of the best authors, respecting it. According to Brande, and the statement is corroborated by Gregory in his Organic Chemistry, it is "neither fusible nor volatile and insoluble in alcohol and ether"—our own experience is diametrically opposed to this assertion. Like all the organic radicals, it is decomposable at an elevated temperature, but by a proper management of heat it may be divided into two distinct substances, each possessed of peculiar properties, and is very soluble in ether.

Strychnine, as we ordinarily find it in commerce, is crystalline, very slightly soluble in water, exceedingly bitter, soluble to but a slight extent in cold alcohol, and composed of the following elements, viz.: carbon 44, hydrogen 24, oxygen 4, nitrogen 2. On exposing it to a moderate heat, it fuses into a brownish liquid, and on increasing it to about 600° F., a portion sublimes, and may be condensed in a cool receiver, while a peculiar resinous and viscid solid remains behind; on still further increasing the heat, the resin is burnt off and a bulky coal is left. As it is solely in the sublimate that the peculiar properties of strychnine are found, I propose distinguishing them as follows: the sublimate we will call strychnine proper, the resinous residue, strychnine extractive. The sublimed strychnine or strychnine proper, condenses in fine arborescent crystals, is like ordinary strychnine exceedingly bitter, is insoluble in cold alcohol, and re-

acts like ordinary strychnine, with the usual tests. The strychnine extractive, is viscid, freely soluble in cold alcohol, exhales when burnt an odor resembling the Tonka bean, is of a fine green color, and as far as I have hitherto examined it, is tasteless. Dissolved by sulphuric acid, it changes to a dirty brown solution, failing to give the usual re-action with bichromate of potass, or any of the strychnine tests. It is highly probable that in the sublimate alone, the medical properties of strychnine are to be found, and as the proportion in which it exists in the alkaloid of commerce is not very large, we may by subliming it, become possessed of a product, whose powers may be enormously increased, while the dose may be infinitely small. Time has not yet allowed me to investigate the properties of the extractive, it is probable it may exert a tonic action devoid of the poisonous principle of its congener. I propose at a future day to enter more fully into its history. I may mention, that the sublimate entirely volatilizes at about 300° F.

The tests for strychnine are well marked, and as far as I have seen, are free from fallacy. Dissolved in acetic acid, it gives a yellow precipitate with chloride of gold, and on boiling, the liquid assumes a pink color. If a crystal be dissolved in concentrated sulphuric acid, and a few grains of powdered bichromate of potash be added, an intense violent hue will be developed at each point of contact, spreading through the whole liquid, gradually shading off to a blue and ultimately into pink; if instead of bichromate of potash, we use peroxide of manganese, or lead, a similar effect is produced.

The tests are of extreme delicacy, especially the bichromate test. I took a grain of strychnia free from brucia, and dissolved it in a thousand minims of water—each minim consequently contained the one thousandth of a grain—by this means I could ensure the most perfect exactness in determining the limits of each test. I found, that while with the peroxides of manganese and lead, the defining limit was fixed at about the three thousandth of a grain; with the bichromate of potash, I could with the most perfect ease detect the forty thousandth, and by varying the manipulation the sixty thousandth of a grain. With these minute quantities, it is requisite that the strychnia should be in crystals, and perfectly dry. The following was the mode of manipulation: one minim containing the thousandth of a grain of strychnia, was diluted with sixty minims of water, and of this one minim was taken and dropped upon a piece of clean white porcelain—the cover of a Berlin porcelain crucible forms an admirable in-

strument—this was evaporated to dryness on a water bath ; when cold, a minute drop of strong sulphuric acid was placed in the centre of the plate, and a small portion of powdered bichromate of potash taken up on a finely pointed glass rod ; by moving this about in the acid and running the rod over the plate, lines of an intense blue, rapidly changing into red, were produced whenever the rod came in contact with the strychnia. In experimenting upon these minute quantities, two things are necessary, first that the strychnia shall be perfectly dry, (the minutest quantity of moisture defeats the experiment), and secondly, that the heat shall be most carefully applied, as otherwise decomposition of the alkaloid ensues, and the test is of no avail. I have little doubt that by a moderate amount of patience and care in manipulation, the hundred thousandth of a grain of strychnia might be discovered by this test. I must be understood, however, to refer to strychnine wholly unmixed with any other salt, or organic matter. We are simply now examining the limits of defining power. So easily is strychnine detected, that if a drop of water containing the thousandth part of a grain be allowed to dry on a glass slide, a large space will be found covered with crystals, forming a most beautiful microscopic object, and the forty thousandth of a grain is distinctly visible to the naked eye. Much has been said, and I think without any show of reason as to the fallacy of colored tests, but the fact is that both in inorganic and in organic analysis, we depend entirely upon the color of precipitates for the detection of substances. No one has yet questioned the fact, that, if on adding the ferrocyanide of potassium to a colorless solution we get a blue precipitate, iron must undoubtedly be present, or if a red color be produced by addition of perchloride of iron, which color is not destroyed by solution of corrosive sublimate, a salt of opium is present. The tests for copper, arsenic, bismuth, hydro-cyanic acid, iodine, and a host of others, all depend upon the peculiar colors, produced by the action of re-agents, and no one has yet questioned their accuracy, and I consider the peculiar blue, produced by bichromate of potassa and sulphuric acid, on a salt of strychnia, to be as fully distinctive as any of the above. The fact is, that in medico-legal investigations, we must not be satisfied by any *one* test—but each must be rendered corroborative of the other. No one would positively swear to the presence of arsenic, from the yellow precipitate produced by the ammonio-nitrate of silver, but if the same solution should in addition give a green color, with ammonio-nitrate of copper, I question whether we should have any doubt of the presence of the poison. In like manner, if we have a

salt, which in addition to the above color produced by bichromate of potash and sulphuric acid, should give the same hue, with peroxide of lead, and have an intensely bitter taste, I do not think we could doubt the presence of strychnia, and any two of the above would be sufficient.

The detection of the poisonous alkaloids, when taken into the system, is frequently extremely difficult, and this may depend upon two causes. First, the extreme tenuity of the quantity necessary to destroy life, by which its separation in a crystalline form is rendered nearly impossible; and, secondly, the probability of the conversion of the poison into some other substance, by the action of the vital force of the organism. At present I am strongly inclined to believe in this doctrine, especially when the poison is exhibited in very minute quantity. It is exceedingly likely that the portion detected may be the unabsorbable surplus, and that the portion which has performed its deadly work, is changed by the process of absorption and digestion to which it has been subjected. All organized bodies are unstable, and none more so than those into whose composition nitrogen enters, and we have already seen that by a slight increase of temperature, strychnia is changed into two substances. Metals and metalloids being elements are unchangeable, and must be absorbed as such. Arsenic circulates as arsenic throughout every particle of the system, and iodine may be detected in all the emunctories as iodine; but with compound bodies the case is different, and it is probable that the organism is capable of taking up and converting to its own use a portion even of the most deadly poison, and that it is only the surplus, whose presence has paralyzed the organs of assimilation, which can be detected. No chemist would venture to assert that caffeine and thein exist as foreign bodies in the system. We know that they subserve to its wants, but there is no question that if a large quantity were taken, a portion would escape absorption, or might pass unchanged into the excretions. So with quinine, between whose composition and strychnine there is a strong chemical analogy, a dose of one or two grains is absorbed and assimilated, a large quantity undoubtedly would remain as quinine, and might be distinguished by the ordinary tests. We must not forget that the word poison is but a term of comparison, and that all the articles of the materia medica, and even some of daily food, are poisons, if administered in sufficient quantity. To assert, therefore, that the minutest quantity of any poison can be detected in the human body, because an infinitesimal quantity can be detected out of it, is to assert a dogma, that yet remains to be proved. It is possible that improved methods

of analysis may yet lead to the proof that change does not take place within the organism, but all I can say, at present, is, that analogy is strongly in favor of the contrary view. Both views require to be diligently investigated, and we can only arrive at the truth by administering to animals the minutest doses of any organic persons, that will cause death, or even such as are insufficient to destroy, and then searching in all the tissues for the poison. It was stated on the trial of Palmer, by those opposed to the view I have been advocating, that although strychnine could be detected when administered in the smallest quantity, nux vomica, could not. Now this statement is simply an absurdity. Strychnia being the active principle of the nux, undoubtedly ought to have been discovered, if the analyst were as capable as he represented himself to be. Dr. Taylor mentioned, that he had given to a rabbit two grains of strychnia, and had detected the poison, with ease; to another he had given one grain, and could only perceive a bitter taste; in a third killed by half a grain, no trace of the poison existed. It would seem, therefore, that half a grain is the quantity capable of assimilation in a rabbit. In order to examine for myself, I gave to a rabbit half a grain of strychnia, and to render it more easy of absorption, and more difficult of detection, I administered it in a solution. The next day I made a rigid and searching analysis, but could find no trace of strychnia. I intend, however, to carry on still further the investigation, and shall report my progress in the Journal. The rabbit died in half an hour, and as its mode of death was somewhat at variance with what has been supposed to be the mode of death by strychnine, I append a description of the phenomena. Five minutes after the administration of the poison, the animal was seized with an universal trembling; in eleven minutes it walked with difficulty, and a tetanic spasm was produced on touching it. Soon after it was seized with an universal tetanic spasm, and its breathing was very rapid—the spasms were attended with perfect relaxations—the hind legs became paralyzed, the fore legs being unaffected. In about twenty minutes it began to utter faint moans, the spasms still continuing though alternating, with long intervals of perfect relaxation: tetanus could at any time be induced by a light touch, but firm pressure seemed to give relief. In about twenty-five minutes, it was seized with a violent convulsion, which lasted some time, and then passed off, leaving the animal perfectly relaxed, in which state it died seemingly of exhaustion. After death, the body was perfectly flaccid, and presented no appearance of having died from the administration of a poison, which is said always to produce the most intense rigidity. The symptoms were those of death from exhaustion.

We are indebted to Dr. Marshall Hall for a very interesting physiological test for strychnia, viz: its influence upon the frog, even in very minute quantity. Subjoined are a series of experiments performed by my colleague, Dr. Brickell, and myself, with this test, and it will be seen that by modifying Dr. Hall's mode of experimenting, we have succeeded in producing the characteristic phenomena, even with the four-thousandth of a grain :

EXPERIMENTS WITH STRYCHNIA, CONDUCTED BY DRs. I. L. CRAWCOUR
AND D. W. BRICKELL.

Experiment No. 1—Class 1.—Aug. 7th, 25 minutes past 12, placed a large and very active frog in two ounces of water containing 1-1000th of a grain of strychnia—water just deep enough to cover about one-third of the animal in a sitting posture; 8 minutes to 2 P. M., no effect perceptible. Animal allowed to remain in the solution.

Aug. 8th, 15 minutes to 12, returned, and found the animal sitting in the solution, and to all appearance as well as when first placed there.

Experiment No. 1—Class 2.—Aug. 7th, 12½ o'clock, placed a medium sized frog in an ounce of water containing 1-1000th of a grain of strychnia; water deep enough to cover the whole body, but allowing the head to be out. The skin of this frog is of lighter color than No. 1, and the animal has a much more delicate appearance, though it is very active.

Eleven minutes to 1 P. M., convulsive twitches—straightens out the hind legs and throws himself against the side of the glass; 24 minutes after 1, same tetanic movements; 2 P. M., spasms have continued with intervals of repose, to this time. Now very sick, head drops under the water. Now taken out of the water and laid on the table—lies on his back, with rigid limbs, and no respiratory action. Apparently dead, yet slight tetanic spasms induced by touching with a straw.

Experiment No. 1—Class 3.—Aug. 7th, 23 minutes to 1 P. M., injected a large and strong frog, through a puncture over the lower portion of the spine, with an indefinitely strong solution of strychnia. Did this to elicit the phenomena of strychnism in the animal. Twenty minutes to 1, violent spasms—legs extended and rigid, arms drawn closely over the chest—animal apparently dead, though twitches of the extremities are readily excited by touching him with a straw.

Experiment No. 1—Class 4.—Aug. 7th, 14 minutes to 1 P. M., injected a strong and large frog, through a puncture over the spine, with 1-2000th of a grain of strychnia. One quarter past 1, tetanic spasms

commenced—decided, and easily excited by the slightest touch; 25 minutes after 1, intervals of repose, but tetanic spasms easily excited. Lies on his back without effort to turn over. Respiration very slow and labored; 2 P. M., nearly dead.

Experiment No. 2—Class 4.—Aug. 7th, quarter after 1 P. M., injected small and delicate, though very active frog, through puncture over spine, with 1-2000th of a grain of strychnia; 17 minutes after 1, violent tetanic spasms—animal straightened out and perfectly rigid; 18 minutes after 1, quiet, but respiration labored; 20 minutes after 1, apparently dead, though strong convulsive twitches of extremities are elicited by touching; 25 minutes after 1, same movements readily excited, though the animal seems otherwise entirely dead; 23 minutes to 2 P. M., animal perfectly rigid—no further muscular action.

Experiment No. 1—Class 5.—Twenty-five minutes after 1 P. M., injected a small and delicate, though very active frog, through puncture over spine, with 1-4000th of a grain of strychnia; 24 minutes to 2 P. M., animal sitting quietly, though respiration very labored. Touched him with a straw, and threw him into violent spasms; 14 minutes to 2, tetanic spasms violent; 12 minutes to 2, violent spasms at intervals; lies with limbs extended and rigid; was nearly dead when we left him.

Experiment No. 2—Class 5.—Aug. 8th, 15 minutes to 1 P. M., injected a feeble medium sized frog, through puncture over spine, with 1-4000th of a grain of strychnia; 13 minutes to 1, violent spasms; 12 minutes to 1, animal apparently dead; 9 minutes to 1, slight twitches of extremities when touched; no other signs of life.

Experiment No. 3—Class 5.—Aug. 8th, 11 minutes to 1 P. M., took frog of “experiment No. 1, Class 1,” (to all appearance as healthy and active as ever) and injected 1-4000th of a grain of strychnia over the spine; 4 minutes to 1, violent spasms, and lying on his back with rigidly extended limbs. Sunk rapidly, and was nearly dead at 2½ P. M.

STERILITY AMONG NEGROES. A CASE.

From a Country Practitioner.

Barrenness is more common among negro women than whites, in my range of observation. Many reasons are assigned by physicians, planters

and overseers for this fact, some supposing the women have knowledge of an art or herb by which conception may be prevented or abortion procured. An infusion of the bark from the root of the cotton plant, or, according to some, of the blossoms or green pods, and also of the hydro piper, has a reputation in this way. In more than twenty years' experience on cotton plantations the writer has never known an authenticated instance in which either of the above, or any herb, art, or incantation, has been used by them. On the contrary, he has found negro women remarkably solicitous to bear offspring, and much attached to them while young. He has been consulted hundreds of times by them, and begged for something to "make them breed." Aside from remedies addressed to the general health, he is not aware of ever having prescribed any thing efficacious. Infusion of the blue vervain, squaw root, horse radish, and pills of assafoetida, aloes and myrrh, have been his favorite placebos, and he has often been amused with accounts of their success.

The following case being curious I submit it, without attaching any great importance to the directions given, or drawing any conclusion from the result, though I intend to repeat the same when opportunity offers, and would suggest it to others.

A negro woman, aged 30 or 32. Married at 17. I have known her from childhood. She has been an out-door hand, and healthy, except slight dysmenorrhea in the winter and spring. She had never been pregnant, and had exhausted my routine of practice in such cases, without effect. Being on the plantation about the first of October, 1855, she came with the approbation of her master to consult me again. There were at the time some women in the quarters waiting to be confined. I directed her to go in and assist with the next one, and so soon as the child was dressed, to apply it to her own nipples and allow it to draw, and to continue this from day to day till she had an appearance of milk. Within a week a child was born, and she tells me she did faithfully as I directed, keeping it up four days. This was near the middle of October, and on the 13th of this month, this woman was delivered of a fine, full termed girl child.

Petit Gulf Hills, July, 1856.

J.

[The foregoing case is fraught with much interest. The phenomenon recorded by our contributor may in times past have passed unnoticed, or, at most, it may have been honored with the term "wonderful coincidence." At the present day, however, it is well calculated to arrest the attention, and we begin to dignify the circumstance by subjecting it to the test of

the great crucible, cause and effect. A negro woman has been married fifteen years, she is a field hand, and healthy, except slight dysmenorrhea in the winter and spring; the *materia medica* is exhausted in efforts to make her "breed." Finally she is told to suckle a newly-born infant: she does so during four days, and nine months thereafter she is delivered of a child.

That a so-called sympathy exists between the *mammæ* and uterus has long been admitted. If the recently delivered woman is threatened with hemorrhage, we put the child to the breast, and frequently efficient uterine contractions are forthwith aroused. "Oh! Doctor, I can't suckle this child, it brings on such awful after-pains the moment it touches the nipple"—is the common cry of the parturient woman. "Put a blister on her breast," or "make a puppy suck her breast"—is the every-day direction of old women, in cases of amenorrhea. "What is the condition of the breast?" is the certain interrogatory of the physician, when consulted as to the existence of pregnancy.

In 1849 Tyler Smith published a work entitled "*Parturition, and the Principles and Practice of Obstetrics.*" On page 138 we find the following passage:

"Irritation of the mammary nerves may produce abortion. This cause is seen in cases of undue lactation, complicated with a second pregnancy. Cases occur in which during prolonged lactation, two or three conceptions and abortions follow each other, the latter being caused by the irritation of constant suckling. I have observed cases in which, owing to the synergic action between the uterus and breasts, the secretion of milk had been almost entirely arrested by conception—the infant being chiefly supported by feeding. The child would still suck most vigorously, in its attempts to obtain milk, until the uterus was excited to the expulsion of the ovum; and after the abortion has occurred, the secretion of milk returns abundantly. If the synergic relations between the *mammæ* and the uterus required any more obvious proof, I might refer to cases on record, in which actual metritis has been caused by the application of sinapisms to the breasts in amenorrhea."

Recently we notice that this author says he was "roughly criticized" for advancing the above idea, and he now calls to his standard Dr. G. S. Bedford, of New York, and he says that "Professor Seanzoni has founded upon it (the idea) a method of inducing premature labor by irritation of the *mammæ*."

With such evidence of a true synergic relation existing between the mammæ and the uterus, and, consequently, or it may be primarily, between the ovaria and the mammæ, it seems to us by no means unreasonable to suppose that the dormant energies of the female generative apparatus may be by this mammary irritation, and by this alone, aroused to the requisite degree of activity. All the phenomena of sympathetic action between the mammæ and the generative organs appear to us through the uterus as the mirror; irritate the uterus, and the mammæ sympathize; irritate the mammæ, and the uterus sympathizes, or at least the sympathy is referred by the patient to the uterus, and so recorded by us. Yet, when we reflect on the subject, and, in considering the true philosophy and phenomena of generation, so far as they are known, we are forced to regard the uterus as of secondary importance; in fact, in the classification of the female generative organs, it is now being regarded as *gestative* in its functions. On the other hand, the ovaria occupy the very first position in point of importance. Deprive the female of these organs, and, so far as the procreation of the species is concerned, she no longer retains the most important attributes of the sex. Deprive her of the uterus however, and we still find her the embodiment of femininity, and although physically incapacitated for gestative purposes, still, could the male element of procreation be placed in contact with the ovary, the new being would be started. The ovaria being more remotely located, and the custom of women being to refer all pelvic distress to the womb, it has become a fashion with the profession to look no further than this latter organ for an interpretation of all symptoms evinced; but a new era is dawning on us, and the researches of Tyler Smith and kindred spirits may yet warrant us in saying that the case related by "A Country Practitioner," comes under the law of cause and effect.

HERNIA AND CHLOROFORM.

Messrs. Editors—A few days ago I was called to a neighboring plantation, to see a negro man who had fallen in the field, while at work, as if he had been seized with an apoplectic or epileptic attack.

On my arrival, I found a very large and muscular man almost pulseless, cold perspiration flowing freely, vomiting, and in fact every genuine symptom of hernia. On examination, I readily demonstrated that strangulated inguinal hernia was the cause of all his suffering.

All the remedies that I had ever read of being used in this affection crowded upon my mind, and I tried several—as taxis, cold irrigation, opium, nauseating doses of ipecac, (having no tartar emetic), relaxing position, etc.; but all to no purpose; the knife appeared to be the only remaining alternative. The weather was very warm indeed, and the sufferings of the patient seemed to prostrate him so much, that I thought an early operation would afford him the best chance for recovery. I started home for my instruments.

Being a “young practitioner,” of course as I rode along all the horrors of an unsuccessful operation stared me in the face. False anus, wounded epigastric artery, every thing unpleasant in the history of hernia, stood out before me in bold relief. I began to think of a choice of anæsthetic agents; whether I should use chloroform or ether; and having determined on the former, the recollection of its wonderful control over the muscular system flashed across my mind. I remembered the many instances in which I had seen it so happily respond to this indication, and I concluded it might yet enable me to dispense with the knife in this case. I procured a 2 oz. phial full and returned to my patient, having determined to administer the remedy by the mouth. I gave him 30 drops, and soon I perceived that the rigidity of the abdominal muscles was relaxing. I now allowed him to inhale it gradually, keeping my hand upon the protruding intestine, and making steady and equable pressure. Soon anæsthesia was produced; then a rumbling noise proceeded from the abdomen, and to my great delight the intestine left my hand to seek its natural abode. The reduction was synchronous with the establishment of anæsthesia. The patient is now perfectly well and able to do as much work as any negro on the place. I offer this case as one more strong link in the great chain of evidence in favor of the safety and inestimable value of chloroform.

Respectfully, etc.,

J. RANDOLPH McAFEE.

Near Tehula, Miss., July 19, 1856.

REMARKS ON THE TREATMENT OF INTERMITTENT FEVER, AND THE EMPLOYMENT OF THE SULPHATE OF CIN- CHONIA AS A SUBSTITUTE FOR QUININE.

By EDWARD JENNER COXE, M. D., Visiting Physician, Charity Hospital, New Orleans.

The attention of physicians has been for years directed to the discovery of a substitute for the sulphate of quinine, thus far regarded as an unequalled remedy for the treatment of many diseases, besides intermittent and other fevers. Of the many articles submitted to the test of experience, the sulphate of cinchonia appears to have obtained the confidence of the profession to the greatest extent. This article is procured from several varieties of cinchonia, which yield quinine in small quantity.

Dr. W. Pepper, in the *American Journal of Medical Sciences*, for January, 1853, has recorded his successful trials of this preparation, and in other journals may be found reports equally favorable to the value of this curative agent. The sulphate of quinine being an expensive agent, often beyond the reach of those of small means, and apprehension being entertained, from its extensive and annually increasing use, that at some future day there may prove a difficulty in procuring a sufficient supply of the bark which most abundantly yields this valuable remedy, are sufficient reasons for noticing the subject.

Having used during the past year the sulphate of cinchonia, almost to the exclusion of quinine, in the wards of the Charity Hospital under my charge, and finding it in all respects equal as a curative agent to quinine, I am of opinion that by extending the knowledge of its value, others may be induced more frequently to test its power, and report the result of their experience with it. During the time specified, I have treated upwards of one hundred cases of intermittent fever, in the wards 32 and 33, of every degree of violence and duration, with a degree of success perfectly satisfactory, and although a particular course of treatment was pursued, and other medicines were conjoined with the sulphate of cinchonia, still, as this sulphate was employed in every case, it may, I think, be fairly asserted, that the use of quinine was not required, and that as a substitute, the sulphate of cinchonia proved itself equal in all respects to that extensively used, and acknowledged remedy. The cases admitted were generally of some standing, varying from one or more months to several years, and as a consequence of the repeated attacks, or the result of an imperfectly cured disease, there was presented every degree of arrangement, and enlargement of the liver and spleen, with some cases of dropsy, and most

generally that morbid physiognomy, indicating an impaired, or broken down state of health, the result of irregular habits, conjoined with this disease in a chronic form.

Upon questioning the patients, it generally appeared that the principal remedy upon which reliance had been placed to effect a cure, was frequent doses of quinine, with but seldom, any proper preparatory attention having been paid to the condition of the digestive organs, which in my opinion is indispensable to the effecting a certain and speedy cure. Admitting the fact, that quinine will frequently arrest a paroxysm of ague, and at times prevent a recurrence, it cannot be considered that the temporary suspension of a paroxysm, consisting of the cold, the hot, and the sweating stages, is identical with the overcoming of the disease, of which they are but the symptoms.

The question presents itself, whether at the present day, we do not more frequently meet with the secondary effects of ague and fever, as enlargement of the liver and spleen, dropsical affections, or a general deterioration of health, than was the case prior to the discovery, and introduction into popular use, of the valuable quinine, or whether, in consequence of its acknowledged power as a curative agent, it is not too exclusively trusted to without that preliminary treatment which all must admit to be of the utmost importance in effecting a lasting cure.

We meet with many cases of intermittent fever, of long continuance, in which, at times from the commencement of the attack, there will not have been a regular shake, but rather a sensation of coldness, or shivering, with lividity of skin and nails, followed by fever of greater or less severity and duration, terminating in profuse perspiration. This is known as the dumb ague, it is regarded as being difficult to perfectly cure, but has been equally successfully managed as the more constant forms by the same course of treatment. Before the discovery of quinine, when the cinchonia bark was considered the specific, it was an almost general rule to commence the treatment of intermittent fever by the exhibition of an emetic, and one of tartar emetic was commonly preferred, from its more decided action upon the general system. This, aided by copious draughts of warm water, or chamomile tea, would produce a free discharge of bile from the liver, and with it the entire contents of the stomach, accompanied generally by profuse perspiration. At the expiration of a few hours, generally at bed time, there was given a dose of calomel, whose certainty of action the following morning, was secured by one or more doses of oil, senna and salts, salts

and magnesia, or other cathartic. The experience resulting from the use of so large a number of emetics consecutively in a given period of time in intermittent and other diseases, justifies, it appears to me, the assertion, either that unpleasant consequences do not so frequently result, as we should be induced to infer from the rarity of their use, and the apprehensions entertained of them by some physicians, or that the addition of the articles conjoined, had the power of preventing their appearance.

In pursuance of this course of treatment, at bed time, there was ordered from ten to fifteen grains of calomel, combined with eight or ten of Dovers' powder, or two or three of the modified blue pill, to be followed the next morning by a moderate dose of oil, or other cathartic, if required.

The sulphate of cinchonia was now brought into use most generally, as follows :

Rec. Cinchonia Sulph. ℥ssad℥jj,
 Syr. Rhei. ℥j,
 Liq. Arsenici Fowlerii, ℥is,
 Tr. Gentian. Comp. ℥iii,
 Tr. Cinchon. Comp. ℥iiiii.

Dose, two teaspoonfulls every two hours during the day. A continuance of the same for a few days, with some rather longer, succeeded in overcoming the disease, which in all probability would not have been the case, had the preliminary remedies been omitted. In addition to this remedy, there was given during the day, at regular intervals, a strong infusion of the best tonics, as bark, snake root, calumbo, quassia and aromatics, and also in some cases a teaspoonful of a powder composed of iron, bark, ginger and cinnamon, two or three times a day, taken in the tonic drink.

After having fully verified the efficacy of the above combination, I used after the preliminary treatment, the sulphate of cinchonia, by itself, in doses of from ten to twenty grains two or three times a day, at times conjoining with it a few grains of Dovers' powder and rhubarb, as might appear indicated. The same results have followed its use in this manner, and it is worthy of remark, that in no one instance was there produced any of those unpleasant sensations, so constantly complained of, after even moderate doses of quinine, no uneasiness in the head, no ringing of the ears, no deafness. Occasionally, with the view of more thoroughly testing these points, it was given, when considered admissible, in the dose of two scruples, and in a few cases, of one drachm, with similar results.

The properties of the two medicines, being in other respects equal, this

difference, if found when tried by others, to prove a constant rule, must certainly in many cases, give the sulphate of cinchonia a superiority over quinine. During the sickness and convalescence, the diet was principally of a farinaceous character, with in some cases towards the end of the treatment, a small quantity of alcoholic or malt liquor. With hospital patients it is clearly impossible to assert that all would escape a return of the disease, some leaving as soon as apparently cured, but as many of the more severe cases remained in the house some time after the cure was effected, without the least appearance of a return, it is but fair to conclude that such was the case most frequently. In view of the above facts, I think it may be asserted, that the sulphate of cinchonia has displayed curative powers, quite equal to those of quinine, and as there is a very material difference in the price of the articles, the promulgation of the above facts may induce others of the profession to test them in other places, and if found to correspond in point of efficacy, in no trifling degree benefit the pecuniary condition of charitable institutions.

It may not be amiss to state, that in many cases, where it was requisite to strengthen the system, without regard to any particular disease, the sulphate of cinchonia has been given in conjunction with the ordinary tonic tinctures, with uniformly good effects.

A few words in conclusion, as to the necessity and immediate advantage of administering emetics in many diseases, may not be amiss. With few exceptions, there was discharged from the stomach one or two basins full of offensive bilious matter of every grade of color, and it is clear that had such remained in the system, until removed by purgatives, through the intestinal canal, not only would the cure have been materially prolonged, but the liability of exciting irritation or inflammation in the viscera, increased, far beyond what might occasionally result from any emetic that might be administered.

SPECIAL SELECTIONS.

ON HYSTERIA.

By Dr. BRIQUET, Physician of the Charite, Paris. Translated from the French by ANTHONY PENISTON, M. D., of New Orleans.

Of all the different classes of society, the medical profession is undoubtedly that which has retained the fewest prejudices and antiquated notions. Warned by an excess of credulity in the preceding generation, the physi-

cians of our day, desirous of avoiding the same errors, are now accustomed to seek the truth by actual observation; to put more faith in the testimony of their senses, than in legendary traditions. Thus it is that they have but little veneration for antiquity, and are not much disposed, *jurare in verba magistri*; in fact, they are perhaps liable to the reproach of running into the opposite extreme. In spite, however, of this praiseworthy disposition, a few prejudices and antiquated opinions yet retain their foothold at the shrine of credulity; *hodieque manent vestigia ruris*.

Among these vestiges of antiquity, there is one from which I would strip the veil of false science, and expose it in its naked deformity: it is that which has long inculcated that woman is in a great manner subservient to her uterus; that hysteria is caused by the wants of that organ remaining unsatisfied, and that the seat of the disease is in the uterine tissue. I wish to prove that this double proposition is completely false, and that it is the mere offspring of prejudice and ignorance. I am the more anxious to destroy this, among the last remains of superstition, because it has occasioned the most unphilosophical deductions, and has influenced most unfavorably the true pathology of hysteria. Under the influence of this prejudice, the unhappy women affected with hysteria were placed in the most humiliating position, for it was long considered by the physicians and the world in general as a shameful disease. In the language of the Poet:—

"C'est Venus toute entiere a sa proie attachee."

So that women seldom acknowledge being affected with hysteria, and the physician himself, on recognizing the disease, is obliged to have recourse to various circumlocutions, and approach the subject gradually, when questioned by the parents, lest he wound their feelings by announcing his diagnosis too unceremoniously. On the other hand, if we consider hysteria as the reaction of the unsatisfied uterus on the rest of the economy, we entirely mistake the real nature of the disease, and we may be led to prophylactic measures better adapted to bring on hysteria than to prevent it, or to adopt a treatment in which the remedy is worse than the evil. Let us then examine the grounds of this belief, the origin of which is lost in the darkness of ages, which was taught by Hippocrates and Plato, sanctioned by all their disciples through countless generations, and which is yet current among the great majority of physicians even at the present day. We may perhaps be disposed to think that an opinion which has received such unanimous approval, must repose on very solid foundations. Alas! on examining closely, we find a monstrous fabric, repugnant to all

the principles of anatomy and physiology. The idea is in fact nothing more than a remnant of paganism, and of some absurd opinions long prevalent among the ancient philosophers. In those remote ages, women were looked upon as the mere instrument for man's pleasures, and a sort of indispensable medium for the propagation of the species. Ancient history only shows them in these two points of view, either as courtezans, receiving the homage which their beauty attracted, and followed by Socrates himself, or as respectable matrons, living in private obscurity, their sole occupation being that of raising children for the State. The women who rose above either of these conditions were so few and far between, that poets sang their praises, and they were honored as heroines.

The philosophy of these times was in accordance with the prevalent ideas on this subject. Pythagoras is the first author in which we find some traces of this doctrine. The philosophy of this Grecian sage, full of mysticism and fanciful speculations on the properties of numbers, distinguished for anything but the accuracy of its dogmas or the severity of its deductions, considered the uterus as an independent being, living within another organism, and endowed with faculties which are characteristic of an animal, viz, sensation and spontaneous movement. Such also was the opinion of Empedocles, among whose disciples was Hippocrates himself.

These principles were so generally admitted that the divine Plato incorporated them into his philosophy, and even added to the ancient theories some embellishments of his own invention. Usurping almost god-like privileges, he created the universe according to his own fancy; having arranged to his own satisfaction the origin of man, who is, according to him, the first created and superior being, he then explained that of woman, and says: "weak minded and unjust men are in all probability remodeled by a second birth, and changed into women." The gods, said he, having thus created the two sexes, then caused the desire of cohabitation, and for this purpose they put into man a living animal and another one in woman. After a short description of the former, which he says is a headstrong and capricious animal, he then passes to that of woman. The womb, says he, is an animal having a great passion for begetting children. If it remain sterile for any length of time after puberty, it cannot endure the privation. It becomes indignant, runs all over the body, closes the air passages, prevents respiration, and exposes the whole body to great danger, by causing a variety of diseases.

Thus it was that the ancient philosophers considered women. According to them, that part of the human species was nothing more than a uterus, provided with organs for its special use. As physicians in those ancient times belonged to some one of the schools of philosophy, they could not fail to apply the systematic theories, in which they had been educated, to the investigation of disease.

Thus it was that Hippocrates considered the uterus as an animal endowed with sentiment and locomotion, having the faculty of spontaneously moving over the different regions of the body, and of attaching itself to the viscera, in order to draw, like a leech, the humidity which it craved. He also represented the uterus as being very liable to the influence of different perfumes, being attracted by some and repelled by others. But those different movements were necessarily followed by many disorders in the economy, and sometimes occasioned serious accidents.

What was the nature of these accidents? When the writings of Hippocrates were only known through the learned obscurity of the Greek, or a scarcely more attractive Latin, then the oracles of the Father of Medicine were surrounded with a mystic spell which few could unravel. But at this day, thanks to the correct and beautiful translation of Mr. Littré, we can now read those works in very clear French; the mysterious veil is lifted and exposes in their naked deformity the grossest and most incredible errors, at least so far as regards hysteria. We are obliged to give a few fragments of the Hippocratic doctrines, in order that the reader may form his own estimate of their value. The following paragraph contains the theory of Hippocrates, or those taught by the schools of his day on the subject of hysteria:

“When the vessels of a woman are more than usually empty, the dry uterus leaves its place and throws itself upon the liver, which is a full and solid organ, in order to get the moisture which it requires; there it may become adherent, and in this way interrupt the respiratory organs which are situated in the abdomen; thus causing the hysterical state.

“If, on the contrary, the phlegm descends from the head to the hypochondria, the womb being moistened from this source, detaches itself from the liver and returns to its place, producing a gurgling sound, and the hysterical state ceases because the womb, having absorbed sufficient moisture, is rendered heavier.”

The following paragraphs explain the cause of the different symptoms in hysteria:

“When the uterus or uteri (for it appears that the examination of some animals afforded all that was known about the anatomy of this organ”) when the uteri ascend to the head, the latter becomes more weighty, and the patient foams at the mouth, etc.

“When, on the contrary, they fix themselves on the heart, they produce suffocation, vertigo, distress, etc., and a rush of wind ends the paroxysm. When the uterus takes its course towards the hypochondria, it causes sour and acrid vomiting, dull headache and suffocation, but sometimes more serious accidents supervene, the eyes are upturned, the face becomes livid, the mouth fills with water as in an epileptic fit. Then come on vomitings of a watery liquid, cardialgia, orthopnoea, and if the womb does not leave the hypocondriac regions, the head and tongue become torpid, the teeth are clenched, the voice is gone, and the woman may die in a fit of suffocation.”

We shall not extend our citation any farther, and trust that the above specimens will be sufficient to form an opinion of the whole doctrine. It is as well perhaps to add that according to Hippocrates, the uterus sometimes attached itself to the ribs or to the loins; sometimes it pressed upon the bladder or occupied the inguinal region: all these different movements being accompanied with peculiar nervous symptoms.

His treatment was predicated upon the above premises: according to him everything should be done to detach the womb from its unnatural connection, and restore it to the normal position. Among other things the physician should exercise pressure and divers manipulations, it should be attracted by agreeable perfumes on one side, and driven away by fetid odors on the other.

These doctrines of Hippocrates on the subject of hysteria held undisputed sway until the time of Galen, that is to say during near six hundred years, and in 1554 they were still advocated by the celebrated Fernel; their reign had thus lasted two thousand years.

At this day such doctrines need no refutation, yet the modern disciples of the Hippocratic school, wrapt in admiration for the sage of Cos, though they are forced to admit that the explanations of Hippocrates are erroneous, and that the womb cannot thus wander over the body, would fain conciliate these opinions with our anatomical knowledge, by supposing that the old master concealed his real meaning under metaphorical language. They say that with almost unerring observation he had rightly attributed the symptoms of hysteria to uterine disorder, and that he only meant to de-

scribe the pathological effects, instead of their mechanical cause. But we cannot admit this justification, for Hippocrates did not locate the cause of hysteria in the womb itself, but evidently attributed all the symptoms to the suffering organs compressed by the uterus in its erratic course. This was his pathology! Remove the compressing agent, and the accidents must necessarily cease. Such were his therapeutics.

So far was he from considering the hysterical accidents as inherent to the womb, that he admitted different symptoms according to the different organs which were severally invaded, and that though the womb were deprived of the moisture it so eagerly sought, yet no bad symptom would ensue if no organs were compressed.

Again—far from comprehending hysteria under the category of uterine diseases, the works of Hippocrates contain an entire volume on the diseases of women, in which he treats lengthily of prolapsus, deviation, displacement, the diseases of the womb itself, and the treatment of these affections, describing a whole arsenal of canulas, sounds, pessaries, sponges, sachets, etc.; all of which are very clearly depicted. But although the different symptoms of all these diseases are well represented, yet he does not make the least mention of hysteria as an independent disease.

It is therefore a gratuitous assumption to say that the ancients had already shown that the uterus is the seat of the disease in hysteria. The only functional derangement which they admitted in this organ was the absence of its radical moisture, and by this they probably meant the spermatie fluid.

Such was the ancient theory in all its simplicity, and we may add, in all its absurdity. It is evident that without the preconceived notions which were peculiar to the philosophy of those days, no one would have mistaken the development of gas in the abdomen, and the globus hystericus, as certain indications of displacement of the womb.

The best critique which can be made of this theory, was the following comment, by Galen: Alas! said he, how can that uterus, to which they attribute so much intelligence, be after all so very stupid that it must needs take so much trouble to look for moisture in the head, in the liver or loins, where there is scarcely any liquid, instead of remaining in its natural position between the bladder, the rectum and the vagina, where it would certainly get more than it required?

I have an idea that Rabelais, who had studied at Montpelier, where the doctrines of Hippocrates flourished in all their purity, probably referred to

this theory on hysteria, and attempted its refutation, in his own way, when, speaking of the temperament of women, he says their genital organs must be naturally cold and damp, for they are situated in a place where there is constant shade, and very frequently wind and rain.

These doctrines, with all their absurdity, reigned supreme, until the age of Galen, who was their first antagonist. Being familiar with anatomy, this author easily proved that it was impossible for the uterus to travel all over the body, as was then commonly supposed. He also showed, in a very peremptory manner, that the immense variety of tumors, cysts, dropsies, pregnancies, etc., which are every day seen among women, may compress the viscera much more efficiently than so small an organ as the uterus, and yet no hysterical accidents are occasioned by them. But Galen, too, was blinded by his own preconceived notions, and his doctrines, like those of the men of his age, were even less honorable to the fair sex than those of the Hippocratic era. The Father of Medicine admitted that the unsatisfied uterus had very singular fancies, but according to him the organ was not diseased. It had only a passing caprice.

Not so with Galen : advocating his humoral doctrines, he professed that the unsatisfied uterus was actually diseased, and these are the proofs which he gives ; they are certainly curious :

1. Hysteria, says Galen, is very common among middle aged women ; it occurs especially among widows who had previously been well menstruated, who had borne children, *atque virorum concubitu gaudebant* (assertions which are completely false). Now, said he, what is more natural than to suppose that their disease is brought on because their seminal fluid (which peradventure does not exist) and the menstrual blood are both retained within the uterus.

3. The most ordinary symptoms of hysteria, being (which is false) suffocation and syncope, followed by general coldness of the whole body—these accidents can only be produced by the seminal fluid, which is naturally cold and damp.

3. It is proved that the retention of the sperm in man occasions many grave accidents ; witness the following incident which occurred to Diogenes the Cynic :

“ Ille vir, alioqui omnium mortalium quoad continentiam pertinet constantissimus, libidini tamen indulgebat, non a copulata voluptate, veluti bono aliquo allectus, sed ut noxiam quæ a retento semine provenire solet, evitaret. Cum meretrix adire pollicita, diutius cessaret, ipse manu puden-

dis admota semen projecit, ac venientam deinde mulierculam remisit, inquiens, manus hymenæum celebrando te prevenit." It appears that at that time a great many very respectable people were in the habit of imitating the conduct of the cynic, for the same prophylactic and hygienic purposes no doubt! In those days, if any one felt any heaviness of the head, or any uncomfortable feeling, it was customary, according to Galen, to attribute all these unpleasant sensations to the action of the seminal fluid, and it was also customary to have immediate recourse to the remedy; the preservation of the health, and the evacuation of the *causa morbi* being of paramount importance. It thus appears that Jesuitical precepts and elastic morals were not invented by Ignatius of Loyola.

Now, what happens to men must also occur to women, who, according to Galen, resemble them exceedingly in this respect, and here is the proof he gives:

"Quadam mulier, ex longo tempore vidua, quæ, per cætera mala, nervorum distensione vexata erat, ac dicente obstetrice uterum esse retractum, remediis consuetis uti decrevit; quibus adhibitis, partim ob eorum calorem, partim etiam quod inter curandum, manibus tractarentur partes muliebres, aborta titillatione cum labore et voluptate, veluti per coitum usu venire solet, excrevit crassum plurimumque semen, atque a molestia sua liberata fuit mulier."

4. The retained menstrual discharge, though less prejudicial than the seminal fluid, for it is sometimes harmless, may be, however, the cause of hysteria, even among married women.

So that according to Galen, the womb is the seat of the disease in hysteria, but this affection is only the result of the retention of the seminal or menstrual fluid; it is a peculiar disorder, which does not exist when the uterus is actually diseased or displaced.

Such is Galen's theory, and such the absurd reasoning on which this author based his opinion that hysteria is owing to unsatisfied passions.

A refutation of Galen's theory is almost as superfluous as would be that of Hippocrates; all his arguments being simply ridiculous.

But Galen though very prolix on all the points which related to this theory, is absolutely silent on the symptoms, the progress of the disease and its treatment; as he cites no observations of his own we are naturally led to suppose that he merely followed the old traditions, satisfied with substituting his explanations for those of Hippocrates. From the above investigation it follows that the ancient doctrines on the nature of hystaeri

were only founded on the *a priori* systems of pagan philosophy, and on the most flagrant medical errors. There is nothing which proves that the ancient authors relied on actual observation when they assert that hysteria is occasioned by a pathological state of the uterus.

As, however, the influence of this organ, though differently explained, still continues to be invoked as a cause; in order to dismiss the subject forever, I shall attack the doctrine in its very foundation; I shall prove: 1st. That a woman totally devoid of a uterus may still have all the other attributes of her sex. 2d. That hysteria may happen in a woman having no uterus, or in a rudimentary state: nay, more, that hysteria has been observed in men, who certainly had no uterus.

Hippocrates said: *Mulier propter uterum condita est.* Van Helmont was universally approved when he repeated the same idea, long afterwards in the following words: *Propter solum uterum mulier est id quod est.* And lastly, in our own day, Mr. Dubois d'Amiens did not meet with much opposition when he said that during the middle period of life the uterus was what really constituted the woman.

When we reflect that the uterus has only a small proportion of nerves coming from the great sympathetic, and a still smaller proportion of spinal nerves, it must be evident that such an organ has no means of influencing the rest of the organism; how then can it have the power, in its normal state, of ruling [the entire system, or even of modifying it in any way? We must now admit the anatomical fact, that the uterus is nothing more than an organ of reception, a species of sac destined to contain the fœtus. But there is a more powerful argument than this: it is abundantly proved by actual observation, and the fact is common enough for every anatomist, with ordinary opportunities, to have verified it, that there are women in whom the uterus is completely absent, and nothing to supply its place. Now these women present all the physical and moral attributes of their sex, many of them even fulfilling all the duties of the conjugal state.

Engel had observed long ago that the absence of the uterus was no obstacle to the development of puberty, nor did it in any way suppress the venereal propensities. Columbres, Fromendus and Morgagni were among the first to cite cases of this kind, and the anatomical records abound in observations of the same nature.

I have recently had an opportunity of observing a similar case. A young woman 24 years of age, by profession a waiting maid, recently died in my wards at the Charité of typhoid fever. She was a tall and beauti-

ful girl, her head ornamented with a profusion of rich auburn hair. She had well developed mammæ, a white and delicate skin, and not the least appearance of hair about the face. Who could have doubted her sex, with the gentle voice, the rounded throat, the delicate features and the smooth round limbs of woman. The post mortem examination showed that the uterus was completely absent. The vagina, which was about $2\frac{1}{4}$ inches in depth, terminated in a solid *cul de sac*, united to a sort of dense cellular tissue, having neither the shape nor the texture of the uterus. Two lateral cords of a fibrous nature terminated in a rudimental ovary of a grayish color. The pelvis was perfectly formed, and of normal size. The pubis covered with hair in the usual manner. The labia majora and minora, together with the corpora cavernosa and clitoris, were not much developed. It was ascertained that the patient had all the habits and characteristics of womanhood; and she had a lover with whom she had been living on the terms of the closest intimacy. Here then, was a woman, perfectly constituted, but entirely devoid of uterus.

Nay more, not only can a woman exist with all the attributes of her sex, notwithstanding the absence of the principal organs of generation, but hysteria has been seen among women who had no uterus.

We find in the Treatise on Pathology, of Professor Grisolle, the following observation, which is exactly in point:

In 1850, a girl 22 years of age died in the Hospital St. Antoine, after having remained over three months under treatment, during which time she was afflicted with the most violent attacks of hysteria, and presented every month the usual signs of congestion which precede the menstrual discharge, though none appeared. At the post mortem examination, made in the presence of Messrs. Grisolle and Chassaignac, no traces of the vagina or the uterus could be discovered. On the sides of the pelvic cavity were two small bodies, which might represent the ovaries. The vulva was perfectly formed, and the mammæ were quite voluminous.

For my own part, I have taken notes of sixty patients between the ages of 5 and 10 years, who were affected with hysteria, the greater part of whom had really convulsive attacks. Yet every one knows that at that age the uterus is yet in a rudimentary state, and can have no influence on the economy.

We now come to hysteria in man:

The authors of antiquity, some who wrote in the middle ages, and those who, in our own day still consider the uterus as either the seat or the ex-

citing cause of hysteria, have necessarily maintained that this disease is the exclusive lot of woman. One of the last mentioned authors, Louyer Willermay, who has written on hysteria, a book worthy of the ancient times, by its spirit of easy credulity, but which nevertheless was long considered the very catechism of hysteria, said, with great simplicity, that it would be ridiculous to admit hysteria in man who has no uterus, for it would be a fault against etymology.

This bold negation of a fact so easily established, shows how observation was applied to medicine until very late years.

Those, however, who were not satisfied to adopt unconditionally the traditions of their predecessors, and who wished to examine for themselves, have acknowledged the existence of hysteria in man.

Charles Lepois was the first who wrote that hysteria was not necessarily connected with the uterus; he had observed the disease among men, and said: *hysterica symptomata, viris cum mulieribus sunt communia*. After him, Willis, Highmore, Sydenham, Stahl, Dumoulin, Raulin, Lorry, Cheyne, Ridley, Tissot, Van^{der} Swieten, Ettmuller, Morgagni, Cullen, Maisonneuve, Gardien, Hellis, Georget, Colombat, Ollivier, D'Angers, M. M. Andral, Billod, Brachet, Gerard, Cerise, Conolly, Copland, Forget, Trotter, Trollier and Sandras have seen hysterical men, and admitted the possibility of the disease occurring in that sex.

This, however, has not prevented some authors, and among others, Messrs. Landouzy and Mounneret, from saying quite recently that the occurrence of hysteria in man is not satisfactorily established, because the facts cited by the above mentioned authors are not sufficiently precise to be demonstrative, and that in order to admit such a thing, the observations should be more complete and accurate.

But we are now in possession of a sufficient number of facts to remove all their scruples, and settle the question permanently; the cases are perfectly authenticated, and presented not only the phenomena which are universally recognized from the remotest ages as characteristic of the disease, but other symptoms which are still more pathognomonic, though but recently discovered.

1st Case—Ernest Langlois, aged 25 years, having a good constitution, but very nervous and easily excited; he is of romantic disposition, sheds tears for the slightest cause; is easily affected even by theatrical representations.

At 22 years of age, he had a violent quarrel with a woman who had pre-

viously been his mistress, she having entered his room against his consent. He became greatly excited, and was seized with convulsions, which were followed by a total loss of consciousness. During the fit he was so violent that several persons were obliged to hold him. The fit lasted fifteen or twenty minutes, and then consciousness returned, followed by sobbing and crying, subsequently to which he had headache and pains in all his limbs for about twenty-four hours. The next day he had almost complete paralysis of sensation and movement on the left side of the body, (a sign highly pathognomonic!) which lasted several days and then disappeared.

Three years afterwards he entered the wards of Professor Laugier to be operated for a small cyst situated behind the ear.

During his residence in the hospital he was ordered a bath, which happened to be too warm; on coming out of this bath he had another convulsive attack, in the regular hysterical form, with a sense of strangulation in the fauces, but no frothing at the mouth. The day after the attack, he felt distinctly the sensation of the globus hystericus, passing from the epigastric region to the throat, and producing a sense of strangulation; there was also a painful spot in the dorsal region, corresponding to the last cervical and first dorsal vertebra; at the same time he experienced a sense of formication and numbness in the muscles of the left side. The third day, all the left side was in a state of hyperæsthesia; the fourth day, this state of exaggerated nervous action was transformed as usual into such complete anæsthesia that all sensation was abolished on the left side. These accidents lasted several days, gradually disappearing, until at the end of two weeks they disappeared completely.

It is impossible to doubt the existence of hysteria in this patient, whose history I have necessarily abridged. The case was observed by many persons perfectly familiar with this variety of disease, and who could not certainly mistake such symptoms as these. In fact, one of the most distinguished internes of the hospitals of Paris has taken this case as the subject of his inaugural dissertation.

2d Case—Tessier, aged 39 years, house painter by trade, is rather below the medium height, of dark complexion, good muscular development, and generally enjoyed excellent health. He had been a mechanic, and afterwards a soldier in Algeria, where, notwithstanding an attack both of intermittent fever and dysentery, he had never had the slightest nervous symptom.

In June, 1848, when the insurrection broke out in Paris, he fought on

the popular side, was taken prisoner by the *garde mobile*, and narrowly escaped being shot. He was, however, long confined in the subterranean dungeons of one of the forts of Paris; and afterwards sent to the hulks. On the eighth or tenth day of these adventures, while very uneasy as to his fate, he was seized with a convulsive fit. This attack was preceded by vertigo, followed by a sense of weight in the epigastrium, and then something which resembled a ball, started from the stomach and reached the throat, where it caused strangulation; he immediately lost all consciousness, had violent convulsive movements, but no froth at the mouth; on recovering his senses, he cried and sobbed involuntarily, and afterwards had a most violent headache, with pains in all his limbs.

These attacks came on in quick succession, and Tessier soon perceived that he had less sensibility on the surface of the body, and less strength on the left side.

This man was subsequently brought to the Charité, at the very moment when he had had one of these attacks; the next day we observed the following phenomena:

Complete insensibility of the skin on all the left side of the body; does not even know when he is pinched on that side, and a needle can be introduced for some distance without the least pain. The muscular power on the same side is considerably diminished. The sight of the left eye is dim, the conjunctiva on that side is completely insensible to the touch of a pin; the sense of hearing, smell, and taste are all completely abolished on the left side; all sensibility is completely destroyed in the mucous membrane of the nose and mouth. He suffers habitually from pain in the epigastrium, and a feeling of constriction in the region of the stomach. Has frequently the sensation of a globe rising from the epigastrium towards his throat. He suffers constantly from pain along the vertebral column on a level with the scapula.

While this patient remained at the Charité, he had several attacks, and no one doubted their having been purely hysterical.

3d Case—Emile Laroche, 29 years of age, a cook by profession, is a man of medium size and strength, of a lymphatic nervous temperament, light hair and pale complexion; very easily excited. His health was good until he was eleven years old, when he was bound as an apprentice, and was ill-treated and badly fed. He soon presented symptoms of hysterical gastralgia, severe pains in the epigastric region, and threw up his food soon after taking it. At 18 years of age he was afflicted with spermatorrhea, and this disease has continued to the present time, notwithstanding fre-

quent sexual intercourse; he gradually became more and more easily influenced by external causes.

At 24 years of age, a friend of his died in his arms from an attack of cholera; he was much affected, and on the same day he had a convulsive fit. During the three succeeding months he had similar attacks almost daily; they subsequently became gradually less frequent, having four or five days' interval between them. He entered the Charité in 1854, in the following condition:

The skin on the left side of the body is in a state of complete anæsthesia, it may be pulled and pricked to any extent without apparent inconvenience to the patient; all the tactile sensibility has disappeared from the skin, the conjunctiva, the mucous membrane of the nose and ear on the left side. On the same lateral half of the body he has lost all sense of smell, taste and hearing—he suffers from continued pain in the epigastrium; also along the vertebral column in the inter-scapular region; and along the lower ribs; the left testicle is very painful; the digestive apparatus is perfectly healthy; has no strength.

While in the hospital, he had several attacks similar to those above described.

On a fourth patient, who at two different times remained more than six months at the Charité, and who recently left that hospital, the same anæsthetic phenomena were presented together with paralysis of the left side. He was for a long time subject to convulsions, evidently of an hysterical character which came on at intervals of eight or ten days; afterwards these attacks came on every two or three weeks, and then gradually disappeared, so that on leaving the hospital, he still felt some hysterical gastralgia, which was considerably relieved by local applications of electricity.

I have moreover recorded the cases of two other young men, who had characteristic attacks of hysteria, but unaccompanied with paralysis. And lastly, a printer, attached to the newspaper *la Presse*, entered my wards a short time ago, who, from sorrows and long continued affliction, became gradually a prey to hysterical attacks, accompanied with convulsions. He remained several months at the hospital, in a state of exhaustion and intense suffering, until finally he sunk and died. The post mortem examination did not reveal any particular lesion, either in the nervous centres, in the principal viscera, or in the genital organs, which could in any way account for such intense and long continued suffering.

So that here are seven cases of hysteria, perfectly characterized by every symptom, leaving not the least room for doubt, and proving that the dis-

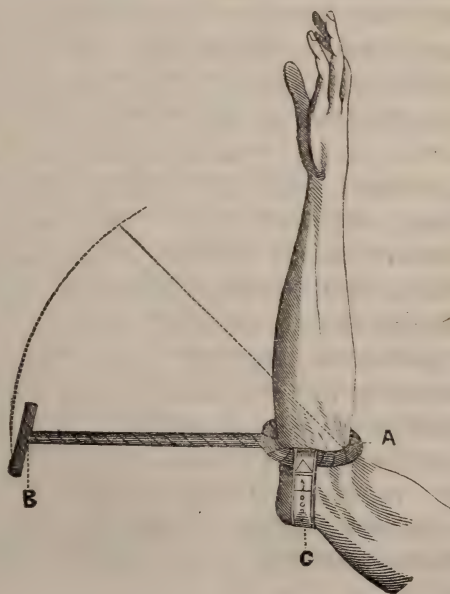
case may exist in man, with the whole series of accidents by which it is usually accompanied.

With these facts before us, we can certainly conclude: 1st. That the uterus is not the seat of hysteria, as the ancient authors had so long inculcated.

2d. That a woman having no uterus nor any equivalent thereof, may be subject to hysteria.—[*Union Medicale*.]

REPORT OF A CASE OF REDUCTION OF LUXATED ULNA, AFTER FOURTEEN DAYS, BY MEANS OF A POWERFUL LEVER, NOTWITHSTANDING THE PRESENCE OF COMPOUND FRACTURE OF THE RADIUS AND ULNA—*Py F. A. Edwards, M.D., Wiveliscombe*.—Miss P——, of Bishop's Lydeard, fell from her horse on the 4th of January, fracturing her radius and ulna at their middle third, and luxating the ulna backwards. Mr. Smith, her family surgeon, reduced the fracture, and by the advice of another surgeon left the ulna unreduced until the fourteenth day, when he, (Mr. Smith) seeing the evil of waiting for perfect union of the fracture, consulted me. The arm was still swollen, but the dislocation of the ulna backwards could be distinctly recognized, and from the prone state of the hand, and the normal position of the head of the radius, we concluded that the bone had not been displaced, but shared the fracture only.

We obtained from a blacksmith a firm iron ring, with a lever or handle sixteen inches long. This ring, covered with soft list, was passed over the arm, as far up as the humerus, a strap and buckle, embracing the olecranon, being fixed to each side of the ring. The knee was then placed in the bend of the arm, as usual, but instead of flexing from the wrist, (which the fractured state of the arm would not permit of) the end of the lever



was seized, and gently, but firmly, made to flex the forearm, and reduction took place as easily as if no fracture existed, with the advantage of the strap drawing forward the ulna, and a convex curve of the ring pressing back the humerus as the lever was used. I believe this power may be applied to the knee, shoulder and even hip, with advantage. The accompanying diagram will perhaps assist my description of the lever. The patient was placed under the influence of chloroform.

SOMERSET, March, 1856.

EDITORIAL AND MISCELLANEOUS.

TYLER SMITH'S LECTURES ON OBSTETRICS.

(Continued from the August No.)

LECTURE XI.—*Causes of Abortion.*—For practical purposes, abortion may be defined as the premature expulsion of the ovum at any time after it becomes visible, and before the twenty-eighth week of pregnancy. Up to the latter date, the foetus is not viable, but after six months it may with care be reared. There are certain differences requiring notice in abortions occurring before and after the end of the second month, dependent on the different size of the uterus, and the altered development of the vascular connection between the uterus and the ovum, before and after the formation of the placenta. The discharge of the ovum between the end of the second month and the twenty-eighth week, has in consequence been termed miscarriage; but bearing in mind the peculiarities mentioned, it will be convenient in practice to consider all expulsions of the ovum, previous to the time at which the foetus becomes viable, under the head of abortion.

This termination is exceedingly frequent. Of 2,000 pregnant women, who applied to the Manchester Lying-in Hospital, Dr. Whitehead ascertained that the collective number of their abortions had amounted to one thousand two hundred and twenty-two. Many of these were young women in their first pregnancy, or women who had not completed the child-bearing epoch. Thirty-seven of every one hundred of these had aborted before they had reached the age of thirty years. Ninety per cent. of those who had lived in wedlock up to the menstrual decline, had aborted. This is

probably one of the subjects open to the greatest improvement in obstetric practice. The date at which abortions mostly occur is from the second to the fourth month of pregnancy. Taking the particular pregnancies in which abortion is most likely to happen, there seems to be greater danger of this accident in the first pregnancy, particularly among the upper classes, and in those late pregnancies which occur before the cessation of the menses.

We have seen, while considering the signs and disorders of pregnancy, that the uterus is in reflex relation with many important organs.

Irritation of the *mammæ* is one cause of abortion. Irritation of the gastric nerves will sometimes produce abortion. It is astonishing what an amount of nausea and vomiting the uterus will bear without being excited to expel its contents, and there is a belief, generally well founded, that sickness prevents the occurrence of abortion from rigidity of fibre or imperfect uterine devolution.

Irritation of the Trifacial nerve may also produce abortion—as from cutting the wisdom teeth, the extraction of a decayed tooth, or constant odontalgia. Vesical or renal irritation, as from stone in the bladder, or albuminuria, sometimes causes abortion. Ovarian irritation has a like effect, as is shown by the tendency to abort at catamenial periods, especially in those who are subject to dysmenorrhea.

Abortion from irritation of the rectal nerves is a well recognized occurrence—as from hemorrhoidal inflammation, ascarides, action of violent purgatives, diarrhea or dysentery, or constipation. The mechanical effects of coughing, vomiting, sneezing or straining of any kind, will cause abortion in delicate subjects.

Irritation of the uterus or vagina may excite abortion. Plugging the vagina is a means sometimes resorted to for inducing abortion. In abortion produced by violent horse or carriage exercise, the accident depends on the irritation of the uterus, and especially the os and cervix, by the head of the child, during the succussion which occurs. Coitus, plugging the os uteri, disease of the os and cervix, procidentia, anteversion, and retroversion, placenta prævia, cancer, fibrous tumors of the uterus, mechanical injuries and metritis, may all cause abortion. In abortion depending on disease or death of the ovum, it is the irritation of the uterus by its abnormal contents which directly excites the act of abortion.

We may consider abortion from reflex action, as being in some points of view comparable with spasmodic asthma, or any other excito-motor dis-

ease. From certain irritating causes, an excitable condition of the excitomotor arcs concerned in parturition is induced. This state of excitability once produced, slight causes, which in healthy subjects would produce no disturbance whatever, are sufficient to produce morbid or spasmodic parturition. This excitability is not suddenly reached. It requires that the nervous arcs, whether mammary, rectal, or other, should be irritated for a considerable length of time, when an excitable, charged, or polar state of the uterine nervous system is produced. The period preceding a case of reflex abortion may be likened to the time preceding an epileptic attack.

The oxytoxic effects of the ergot of rye, cannabis indica, savin, borax, galvanism, and inhalation of carbonic acid, or its retention in the blood in asphyxia, are very generally believed in. Abortion has often been caused by the ergot of rye. During accidental or intentional poisoning by carbonic acid, the ovum has been found to be expelled. In the celebrated *razzia* in Algeria, conducted by the present Marshal Pellissier, in which a number of Arab women were suffocated in the caverns of Dahra, many of those pregnant were found to have aborted. The same thing occurred in a similar exploit by the Chevalier Bayard. In drowning, sudden abortion has been known to occur. Many of the poisons, when taken by pregnant women in fatal doses, have caused, in the first instance, loss of the ovum. Loss of blood; exhaustion (from any cause); the syphilitic poison; mercurialization; zymotic diseases, as small-pox, scarlatina, etc.; chorea; visceral inflammation; albuminuria; and, according to Lugol, the strumous diathesis, may lead to abortion. Emotion is another cause. Women have aborted at the stake. Of these oxytoxic agencies, some affect the nervous centres, and are in this respect to be distinguished from the ex-centric or reflex causes of abortion. Ergot, for instance, passes into the blood, and affects the spinal centre, being specially directed to the lower portion of the spinal marrow, and to that part of it in relation with the uterus. The influence of emotion is dynamic or psychical. Others amongst the causes of abortion probably affect the nutrition and life of the ovum, and thus lead to abortion.

The amount of disturbance to which some women may be exposed, without inducing abortion, is extraordinary. Other women abort on the slightest occasion. A habit of abortion appears to be acquired in some cases. I have known a woman to abort ten times in five years; and another fourteen times in eight years, together with one still-born child. In some women, it appears that the uterus cannot be developed beyond a certain point.

There is one other cause of abortion on the maternal side, which I believe to be of very great importance. We have seen that the mucous membrane of the uterus is concerned in the menstrual discharge, and that the decidua consists of the altered mucous membrane itself. Every abortion really consists in the throwing off of the mucous membrane of the uterus and the ovum, which has been developed on its surface. I believe that in many cases of abortion, as in menstruation of morbid and healthy type, the disintegration and exfoliation of the mucous membrane or decidua is the first step in the process, and the direct cause of the loss of the ovum. From this point of view we must consider the show in cases of abortion, and the continuous sanguinous discharge, as similar to the discharge in menstruation. In many cases it happens that abortion is threatened, and there is a colored discharge for many days without the loss or injury of the ovum. In these cases the discharge probably takes place from the surface of the decidual mucous membrane, as suggested by Dr. Matthews Duncan, in reference to menstruation during pregnancy.

A new cause of abortion, of great importance, affecting the maternal and foetal structures of the ovum, has been made out within the last few years, chiefly by the original researches of Dr. Robert Barnes: I allude to fatty degeneration of the chorion and placenta. Kilian had noticed a solitary case, but the first systematic account of the disease we owe to Dr. Barnes, who was assisted in his microscopical investigation of the subject by Dr. Hassall.

The placenta is subject to congestion and inflammation, and their results, and those affections are not unfrequently the causes of abortion. Congestion of the placenta leads to what is termed apoplectic effusion. The causes of placentitis are not very obvious, beyond mechanical injuries, and the great afflux of blood to the organ, which occurs during pregnancy. The placenta is liable to other diseases, which have a tendency to repetition, such as calcareous degeneration, tubercular deposits, and atrophy or hypertrophy. In the case of a syphilitic ovum leading to abortion, the placenta is very commonly diseased.

POLITICS AND MEDICINE.

“ELOQUENCE AND POETRY—*Dr. Holmes on Surgery and Sumner.*—At the late Annual Festival of the Massachusetts Doctors, Dr. Holmes, in speaking of the dignity and usefulness of the healing art, thus very happily alludes to Mr. Sumner:

"Nay, come down to nearer times and places, and look into the chamber where our own fellow citizen, struck down without warning by the hand of brutal violence, lies prostrate, and think what fearful issues hang on the skill or incompetence of those who have his precious life in charge. One little error, and the *ignis sacar*, the fiery plague of the wounded, spreads its angry blush over the surface, and fever and delirium are but the preludes of deadlier symptoms. One slight neglect, and the brain, oppressed with the products of disease, grows dreamy, and then drowsy; its fine energies are palsied, and too soon the heart that filled it with generous blood is stilled forever. It took but a little scratch from a glass broken at his daughter's wedding, to snatch from life the great anatomist and surgeon, Spigelius, almost at the very age of him whose recovery we look to not without anxious solicitude.

"At such an hour as this, more than at any other, we feel the dignity, the awful responsibility of the healing art. Let but that life be sacrificed and left unavenged, and the wounds of that defenceless head, like the foul witch's blow on her enchanted image, are repeated on the radiant forehead of Liberty herself, and flaw the golden circlet we had vainly written with the sacred name of Union!

"Dii, prohibite minas! Dii talem avertite casum!

"I give you, Mr. President,

"The Surgeons of the City of Washington—God grant them wisdom, for they are dressing the wounds of a mighty empire and of uncounted generations."

Dr. Holmes's sentiment was received by the rising of the whole Society, who responded with three hearty and enthusiastic cheers."—[*American Medical Gazette*.

"SENATOR SUMNER AND THE DOCTORS.—The newspaper accounts of the wounds of the Senator of Massachusetts, and the professional treatment to which he has been subjected, have so mystified his case as to render it ludicrous if it were not obvious that they are furnished by reporters for partizan presses, whose ignorance and prejudices conceal the truth.

Dr. Bunting, of Montreal, who is itinerating through the country, with the celebrated curiosity of the man with an open wound in his stomach, on exhibition to the Faculty, seems to have been the first surgeon who saw the wound, and he swears that it was upon his head, and that it was some six inches deep! which, if true, would have brained the Senator, and been "past all surgery." Next we have the evidence of several other medical

men, essentially differing from each other as to the nature and extent of the injury, and so widely, that we cannot decide whether the wounds are trivial or serious, and whether his absence from his seat was from necessity or choice, and this point has even been mooted in the Senate.

These conflicting statements and their source do not concern us at all; but from our professional stand-point we cannot forbear criticising his treatment in the light of surgical science, and this irrespective of the medical men concerned. That he was not a martyr seems to us to have been marvellous, and we congratulate him and his assailant on his extraordinary escape.

First, then, if the wounds were made through the scalp by blows with a cane, these wounds were incised, but lacerated, and the adjacent tissues contused. Stitches were therefore contra-indicated, and ought not to have been used; nor were we surprised at the bulletins announcing the erysipelas which followed such bad surgery, and endangered the patient's life.

Secondly—That the blows, as described by all parties, produced very severe concussion of the brain, and this was by far the greatest source of hazard to the Senator's life. Now, according to surgical rule, a dark room, a silent chamber, the prohibition of all conversation, and the exclusion of company, should have been enjoined and enforced; thus withdrawing the stimuli of light, sound, mental effort, and society, and absolute rest should have been insisted on as the first condition of recovery. Instead of this course being taken, his brain was speedily taxed to call up the circumstances and witnesses of his attempted assassination, and he was subjected to an inquisitorial examination on these topics. Had his surgeons done their duty to their patient, they would have resisted this jeopardy to his life, though urged by reasons of State, by appealing to a "higher law;" and, if necessary, had they employed a "gutta percha cane" upon the heads of the intruders, it would have been in proof that they were true to their patient, and we could have forgiven them much easier than we can Mr. Brooks. On the whole, we regard the recovery of Mr. Sumner to be an extraordinary escape."—[*American Medical Gazette*.

One of the noblest impulses of man's nature is that which prompts him to overlook the faults of his fellow men, or even to throw a veil over the nakedness of their sinning. But there are times when truth and justice so loudly call for their victim, that even kind and officious Charity shrinks from the clamor, and willingly leaves him stripped before the blast of public scorn and contempt.

What high-minded and honorable son of Æsculapius can read the above effusions without the deepest sensations of shame, pity and contempt? Shame, that he should find himself affiliated by a common name with the authors; pity, that humanity should be so weak as to bend thus under the yoke of an ever changing public opinion; contempt, that anything wearing breeches and calling itself a man, should allow its mind to sink so far below the level of propriety and professional decency as to make that press, which it has sworn to devote to the noble cause of science a mere vehicle for hauling away the dirty garbage from a political metropolis.

Think, ye men of science, of the Annual Meeting of the Massachusetts Medical Society being the scene of political fanaticism! Think of the "whole society" rising to give three cheers to the little physic-poet, who had not only volunteered his cacoethic muse against the "brutal violence" of a Southern representative, but had shaped her into an empty, vain-glorious threat against the peace of our common land! Think of a body of scientific men, meeting to cheer the apostate who could thus wantonly debauch science whilst pretending to espouse her chastity! And then think of the editor of a medical journal, which claims to be the exponent of, and champion for those high principles which should govern professional gentlemen, stepping aside from his obvious and sufficiently onerous duties to lend his pen to slanderous tales of "attempted assassination," and wanton insults to medical men, who from their "stand-point" of professional reputation, might safely dare him to the scale of public opinion! Think of an editor branding as "bad surgery" the treatment of a case, from which he was so far removed, and of the nature of which he in plainest words acknowledges himself to be *ignorant*!

Did we think that the conduct of these men would elicit any other sentiment than the scorching censure of all good and true men, we would devote a few pages to the record of overwhelming evidence in favor of "the Surgeons of the City of Washington;" but every heart that is free from the poison of fanaticism, every heart that soars above pandering to leprous appetites, every heart that knows no geographical or political boundary to science, all noble hearts, will throb condemnation of the spirit which prompted them to speak and write.

That such men will live in history is most improbable, unless the Pythagorean doctrine be true, and in the transmigration of souls they are found in the shape of the ruthless little moth, preying on the valuable pages, as they would now prey on the fair reputation of their fellow men.

Alas! that it should have come to this; that Medicine at the North is to be drawn up in hostile array against Medicine at the South; that science is to droop under the withering influence of a political fanaticism which has seized the least virtuous portion of our people! Shall it be so? No, our very ink refuses to flow to the record of such a suggestion, and it blushes to write down the names of the rebels this day found in our ranks. In the borrowed language of the physic-poet—

Dii, prohibete minas! Dii, talem avertite casum!

“A QUESTION.—When Brooks was beating Sumner, with the very probable result of destroying his life, would any humane man of less physical strength than the assassin been justifiable in shooting him? We think it would have been a duty.”—*Scalpel*, for July, 1856.

A skunk once challenged a lion to single combat. The lion declined accepting it. “How,” said the skunk, “are you afraid?” “Yes,” replied the lion, “you would only gain fame by having the honor to fight with a lion, while every one who meets me for a month to come would know that I had been in company with a skunk.”

But for an aversion to playing lion to the Scalpel’s skunk, we might be induced to notice the above politico-medical effusion more *in extenso*.

YELLOW FEVER.—As editors of a Medical journal, it becomes our duty to chronicle all facts connected with the medical history of our city, and more especially such as relate to yellow fever. Last year we furnished our readers the most reliable data we could possibly obtain by personal exertion, in relation to the origin of the epidemic which visited us; this year we will endeavor to do the same. We will give facts as they occur around us, and let our readers draw their own conclusions.

Case 1.—July 27th, 1856, James Hawkins, a native of Kentucky, but late a resident of Arkansas, entered ward 33, Charity Hospital. Patient is one of the “La Paz prisoners,” and has recently returned to this country from his long captivity in Mexico. He reached Vera Cruz, from the city of Mexico, about the 10th of July, inst., remained there until the 20th, and took passage on the steamship Texas, for New Orleans. He reached New Orleans on the 25th July, sick with fever, though able to walk a little. Had felt unwell on the 24th, and had a chill, followed by fever, on the 25th. On his arrival, he was taken to the Rainbow hotel, corner of New Levee and Notre Dame streets. Remained there until the

27th, when, being worse, he entered the Hospital. When he entered the ward he had fever.

July 28th, morning.—Skin hot and dry—pulse 94—tongue coated white, with red edges—great thirst—pains in head and lumbar region—vomiting bile.

Evening.—Fever still continues—still vomiting—skin moist and turning yellow.

29th, morning.—Pulse 56—great nausea—vomiting clear fluid in small quantities—no pain—skin moist and cool.

2, P. M.—Vomits dark matter—very restless—pulse 64, and undulating.

30th, morning.—Pulse 62, and soft—tongue red, with a dark stripe down the centre—vomiting black matter without much effort.

3, P. M.—Pulse quick and feeble—delirious—still vomits black matter—*subsultus tendinum*.

5½, P. M.—Is dying.

The above is a history of Case No. 1, derived in part from notes taken by a very intelligent student of medicine, who marked the case down as yellow fever from the moment of first seeing him, and partly from a very clear and intelligent history given us by a comrade who came over on the Texas with Hawkins. We did not see the case until the morning of the 30th. At this time the man was yellow, delirious, and throwing up black vomit freely. Indeed we have never seen a “better” case of yellow fever.

An autopsy was performed in this case, and all the characteristics of yellow fever were present.

Case 2.—Aug. 13th Eugene Claudel, native of France, aged 30 years, laborer, entered ward 13. Patient is from the city of Mexico, where he has resided for 18 months past. Left that place on the 1st August, on horseback. Arrived in Vera Cruz and spent two days and nights there, previous to his departure for New Orleans, on board the steamship Texas, on the 8th inst. Felt perfectly well when he left, but on the 10th, towards evening, felt some pain in the head, which was soon followed by a chill, and then a burning fever. Did nothing but drink water freely while on the boat. On his arrival at New Orleans, Aug. 12th, he was conveyed to a French boarding-house, but, being a stranger, he does not know the locality of the same. Was admitted into the Hospital on the morning of 13th—died on the 14th.

We saw this patient, and he was a type case of yellow fever. A post mortem was held, and confirmed the diagnosis.

Case 3.—Lawrence Olsen, native of Denmark, aet. 40 years. In New Orleans two years. Laborer. Entered ward 12, on the 14th Aug. Died on same day.

This patient was delirious when he entered, and could give no account of himself, and unfortunately no further history than the above was elicited from those who brought him to the Hospital. We have made every effort to trace him up, but in vain. He was undoubtedly a case of yellow fever.

Case 4.—Valentine Neu, native of Prussia, aet. 23 years, shoemaker, 6 months in New Orleans, last from Pittsburg, entered ward 12, on 10th of August. Had fever, but yellow fever was not suspected. On the 16th he became worse, threw up black vomit, and died. He was undoubtedly a case of yellow fever.

Since the death of this man we have used every exertion to trace up his place of residence, etc. We have succeeded in tracing him to the Rainbow hotel, where Hawkins, (Case No. 1) was sick after his arrival on the steamship Texas. The obliging proprietor of the Rainbow showed us his register, and there is the name of the patient. He had been boarding at this hotel since January last.

Case 5.—Edward Duffy, native of Lowell, Mass., though of Irish descent, aet. 21 years, entered ward 13, on 13th of Aug. Has been engaged running on towboats between the Balize and this city for 3 months past.

We saw this man on the morning of the 13th, when we went in to see Case 2. He was lying on an adjoining bed, and had a high fever. We noted him more particularly as being one of seven men in the ward who had never had yellow fever, and we were anxious to see whether any such individuals would contract the disease from the Vera Cruz case. He died on the 16th, of genuine yellow fever, and the post mortem revealed all the characteristics of this disease.

Such is a history of the five first cases occurring in the Charity Hospital this season. There were several other cases occurring simultaneously with these, one from Mexico, per steamship Texas, and one taken sick at the Rainbow hotel; but as they were considered doubtful, or even more than doubtful by some medical gentlemen, we refrain from giving any account of them. We have shown that yellow fever has been introduced into the city from Vera Cruz, and in spite of quarantine; it remains to be seen whether it will spread—whether we are to have an epidemic.

Since writing the foregoing, there have been two or three other cases in

the Hospital, though they have certainly occurred since the introduction of the imported cases, and present comparatively little interest. We hear of two or three undoubted cases in private practice, though we have seen none ourselves. All are said to be among the laboring class of persons.

It will be perceived, by reference to the mortuary reports of the city, that 7 deaths by yellow fever are reported for the four weeks ending Aug. 23d. Five of these are the cases just cited in detail. Of the remaining two, only one is considered undoubted. This one was seen late in July by a physician in the lower part of the city, who reports the case to the Board of Health as yellow fever, but says he was called in only in time to see the man die. He learned that he had been taken from an American schooner just arrived at New Orleans, but could get no particulars.

HEALTH OF OUR CITY.—By reference to our Mortuary Record, the reader will perceive that the city of New Orleans has been more healthy during the four weeks ending August 23d than during the preceding month. We report a total of 435 as the past month's mortality, whereas our last number showed a total of 459 for the three weeks ending July 21st. Certainly this is a very favorable state of affairs, and when we consider that we have but one more month of summer weather to undergo, we should congratulate ourselves on our happy condition.

We have elsewhere reported a few cases of yellow fever which have undoubtedly been found in our midst. It is a month since their first appearance, and yet we have no evidence of real extension of the disease. At the present time (26th) we hear of two or three cases in private practice, besides as many in the Hospital, but there is no evidence to induce the belief that we will be visited by an epidemic.

PROFESSORIAL RESIGNATION AND APPOINTMENT.—From the Annual Announcement of the Medical Department of Pennsylvania College, just received, we learn that Professor J. M. Allen has resigned the Chair of Anatomy in this flourishing institution, and that Dr. T. G. Richardson, of Louisville, has been appointed to fill the vacancy.

Again are we called on to deplore the fate of the prophets of Philadelphia. In Wall street language, it may truly be said, that Western professorial stock is rising. Call them away, gentlemen, you cannot find better material with which to build up your colleges. The quarries are rich, too. "Plenty more of the same sort left."

"MEMPHIS JOURNAL OF MEDICINE"—Edited by R. H. Harrison and Jerome Cochran, and evidently the organ of the "Botanico Medical College of Memphis," another quack factory. Cannot exchange, Messrs. Editors, farther than sending you the present number of our Gazette.

BOOKS AND PAMPHLETS RECEIVED.—The Microscope and its Revelations. By William B. Carpenter, M.D., F.R.S., F.G.S., etc., etc. With an appendix containing the Applications of the Microscope to Clinical Medicine, etc.; by Francis Gurney Smith, M.D., Professor, etc. Philadelphia: Blanchard & Lea—through J. C. Morgan of this city. This is one of the most valuable of all the new works on our table. A necessity was felt for just such a book, and all who are interested in microscopical research will hail its advent with real pleasure. Dr. Carpenter has long since established a reputation for being the very best compiler of the age, and in this instance he most fully sustains himself. It would be useless for us to indulge in an extended notice or review of his work, even if such was the province of our journal, for not a word can be said otherwise than in praise.

To the American editor, Dr. Smith, the profession are deeply indebted for a very valuable appendix. It has become the exception for such editors to enhance, by their notes, etc., the value of foreign works, and when it does happen the fact should not be overlooked. Although the whole of Dr. Smith's appendix may be found in other works, still it is much more valuable in its present association, while it really enhances the value of Dr. Carpenter's work.

Cases in Midwifery, with Remarks. By Thos. F. Cock, M.D., Physician to the New York Hospital. Reprinted from the New York Journal of Medicine.

Quarterly Summary of the Transactions of the College of Physicians of Philadelphia, from April 2d to June 4th, 1856, inclusive.

On Œdema Glottidis resulting from Typhoid Fever. By Thos. Addis Emmet, M.D., etc. Extracted from The American Journal of the Medical Sciences, for July, 1856.

Fourteenth Annual Catalogue and Announcement of Lectures of Rush Medical College, for the Session of 1856-'57.

Announcement of the Philadelphia College of Medicine, for the Collegiate year, 1856-'57, with the Catalogue for 1855-'56.

Annual Announcement of the Medical Department of Pennsylvania

College, Ninth street, below -Locust, Philadelphia. Session of 1856-'57.

Annual Circular of the Trustees, Faculty, and Students of the Medical College of the State of South Carolina, 1855-'56.

PATENTS.—“Dr. Mattson, *fellow* of the Massachusetts Medical Society and *member* of the Boston Medical Association, has recently *patented* an elastic syringe.”—[*Nashville Journal*.]

Don't know how the syringe will answer for others, but it certainly will not meet the indications in the case of the patentee. He requires a drastic purgative.

REPORT OF DEATHS IN THE CITY OF NEW ORLEANS for the month ending August 23d, 1856.

Men, 126 ; women, 57 ; Boys, 135 ; Girls, 115 ; Sex not stated, 2 ; Adults, 183 ; Children, 250 : Males, 261 ; Females, 172 ; Colored, 67 ; Total, 435.

Diseases.—Abscess of Lung, 1 ; Abscess, 1 ; Anemia, 1 ; Atrophia, 1 ; Apoplexy, 4 ; Asthma, 1 ; Bleeding from Bowels, 1 ; do. from Lungs, 1 ; do. from Womb, 1 ; Bowels, disease of, 1 ; Brain, do. 1 ; Bronchitis, 3 ; Cancer of Uterus, 3 ; Catarrh, 2 ; Cholera, 2 ; Cholera Infantum, 9 ; Colic, 2 ; Concussion of Brain, 2 ; Congestion of Brain, 12 ; Consumption, 43 ; Convulsions, Infantile, 28 ; Croup, 3 ; Chlorosis, 1 ; Congestion of Lungs, 5 ; Cramps, 2 ; Delirium Tremens, 3 ; Diarrhea, 10 ; Dropsy, 3 ; Drowned, 8 ; Dysentery, 17 ; Debility in Adult, 2 ; do. in Infants, 7 ; Dropsy in Head, 4 ; Dyspepsia, 2 ; Disease of Spine, 1 ; Enlargement of Heart, 1 ; do. of Liver, 2 ; Enteritis, 19 ; Erysipelas, 1 ; Exposure and Want, 1 ; Epilepsy, 1 ; Fever, 2 ; Bilious do. 5 ; Congestive do. 8 ; Puerperal do. 4 ; Remittent do. 2 ; Typhoid do. 11 ; Intermittent do. 1 ; Typhus do. 1 ; Yellow do. 7 ; Disease of Heart, 4 ; Inflammation of Brain, 5 ; do. of Lungs, 6 ; do. of Stomach, 3 ; do. of Liver, 2 ; Insanity, 1 ; Marasmus, Infantile, 15 ; do. Adult, 2 ; Measles, 6 ; Meningitis, 2 ; Neuralgia, 1 ; Peritonitis, 1 ; Parturition, Difficult, 1 ; Pleurisy, 1 ; Scrofula, 2 ; Softening of Stomach, 2 ; Still born, 29 ; Stone, 1 ; Scurvy, 1 ; Suicide, 1 ; Scurvy, 2 ; Teething, 30 ; Tetanus, 2 ; Trismus Nascentium, 5 ; Ulcer of Bowels, 1 ; Unknown, 2 ; Wounds, 1 ; Not stated, 13.

Diseases Classed.—Zymotic, 92 ; Nervous System, 98 ; Respiratory 69 ; Digestive System, 63 ; Circulatory System, 16 ; Generative System, 8 ; Sporadic, 18 ; External Causes, 32 ; Age, 10 ; Not specified, 29 ; Total, 435.

Ages.—Under 1 year, 146; 1 to 2, 43; 2 to 5, 34; 5 to 10, 12; 10 to 15, 9; 15 to 20, 8; 20 to 25, 34; 25 to 30, 23; 30 to 40, 48; 40 to 50, 40; 50 to 60, 20; 60 to 70, 6; 70 to 80, 4; 80 to 90, 4; 90 to 100, 1; unknown, 1.

Nativities.—England, 7; British America, 1; Denmark, 1; France, 7; Germany, 17; Ireland, 43; Italy, 3; Madeira, 1; Mexico, 1; Norway, 1; Prussia, 2; Spain, 3; Switzerland, 1; United States, 152; West Indies, 1; Not stated, 146.

LIST OF SUBSCRIBERS WHO HAVE PAID UP TO AUG. 26, 1856.—Drs. J. M. Haden, \$5, 1856; G. W. Pickering, \$8, 1855-'56; D. F. Metcalfe, \$3, 1855; J. T. Metcalfe, \$11, 1854-'55-'56; A. P. Jones, \$8, 1855-'56; E. D. Cheney, \$5, 1856; C. Turpin, \$5, 1856; P. E. Delente, \$5, 1856.

Whilst on this interesting subject, we beg leave to jog the memories of some of our friends who are in arrears. All we ask is that they will send us money enough from month to month to keep the wheels of our machine well greased. We would not object to their furnishing a little oil for our lamps too, but we are willing to furnish lights for the present, if they will pay the printer.—[EDS.

EXCERPTA.

AN ABSTRACT OF A PAPER ON "POPLITEAL ANEURISM CURED BY COMPRESSION"—*Read before the Ohio State Medical Society, by Dr. G. F. Mitchell, of Mansfield, Ohio.*—The time was when the treatment of this disease was almost exclusively by ligature; latterly, however, compression has attracted the attention of the profession—and in the estimation of many eminent surgeons, is to be preferred, as statistics show it to be the most successful.

Early in July, 1854, Dr. Mitchell was consulted by I. P., a drover, in reference to a large tumor situated in his left ham. Its history was as follows:—

In the spring of 1853 he journeyed to California on foot, by way of the plains. Soon after his arrival there, while exerting himself violently at

running, he felt a keen, stinging pain immediately posterior to his knee ; shortly after which a tumor appeared. This had increased in magnitude, gradually, up to the time Dr. M. was consulted.

The tumor was nearly spherical—about four inches in diameter, fully equal to that of the articulation of the knee. The pulsation, over its entire surface, was uniform and synchronous with the arterial pulse.

Total disappearance of pulsation was caused, by pressure on the cardiac side ; and increase of magnitude, by pressure on the distal side. Popliteal Aneurism was diagnosed—and treatment by compression recommended.

This was begun on the 25th of July—Dr. John W. Bond assisting—the foot and leg being first bandaged as high up as the tumor. “One clamp tourniquet and one ring tourniquet were then applied over the femoral ; these were alternately tightened and relaxed and their positions shifted along the course of the artery. In a short time, however, the ring tourniquet was removed, and a clamp tourniquet applied in its stead.”

The patient being intelligent, and desirous of a speedy and successful termination, was readily instructed in the use of the instruments, and left, in great part, to regulate the amount of pressure.

“For the first ten days compression was applied from 12 to 14 hours in the 24. Some pain was experienced during this time, but none sufficient to disturb the patient.” His rest was sufficient and refreshing ; the tourniquets, however, being always removed previous to sleep. The tumor had by this time acquired considerable firmness—and the sack could no longer be emptied of its contents.

“For the next three weeks pressure was continued from 16 to 18 hours per diem—the sack becoming firmer and pulsation less distinct. During the succeeding six days compression was applied about 20 hours in the 24, pulsation becoming feebler. For the next five days pressure was applied continuously.”

At the end of this time all pulsation in the tumor suddenly ceased—diminution in size continuing to take place. Compression was continued, however, for a few days longer, when exercise was allowed him—the collateral vessels during this time, becoming perceptibly enlarged.

Six weeks precisely, were occupied from the time pressure was begun until all pulsation ceased.

At no time was the circulation through the vessel entirely checked. The pain was not severe—the pressure along the course of the artery being so

alternated as to allow the patient ease and repose throughout the whole course of treatment.

Neither did redness nor excoriation of the skin at any time exist.

Nearly two years having elapsed since his dismissal, and his leg continuing as strong apparently as the other, we may conclude with confidence that the cure was complete.

POLYPOID GROWTH OF THE UTERUS.—Mr. Hird exhibited a polypoid growth, which had been removed by excision after ligature from the cervix and os uteri of a patient of the President's, in the Charing-cross Hospital, aged forty-seven. It was the size of a child's head; and its pedicle, about two inches in diameter, appeared to grow from the whole of the inner surface of the left side of the neck of the uterus, which was much enlarged. The structure was that of the cellulo-vascular variety of these formations, the vessels being unusually large. At the time the tumor was removed, and for a fortnight previously, the os and cervix uteri had been dragged by its weight through the vulva; but until recently, although it frequently protruded, the patient herself had been able to return it and retain it in the vagina.

Dr. Chowne remarked that the tumor had been long regarded as a prolapsus of the uterus, and had been returnable into the vagina at will, by the patient herself, for the last twenty years. When he first saw it, he found it easy to pass the finger to the end of it, and feel the uterus. It was then as large as an infant's head. The bladder was but little interfered with by the tumor, and the patient suffered slightly from constipation.

PROCIDENTIA UTERI—Operation—Cure.—Julia L——, aged 21, admitted into St. Mary's Hospital on the 29th of February, 1856; single. has had no child, abortion or miscarriage; admits having had intercourse; three years ago was quite well, but about that time, lifting a heavy weight, strained herself; the accident happened while at her occupation of riband weaving. Immediately afterwards pain and bearing down came on, and a leucorrhœal discharge, from which she habitually suffered, was very much aggravated. At the end of a week the womb came suddenly through the os externum while she was walking. Since then, the womb has always protruded upon assuming the upright posture, and defæcation. She can return it when lying down, but it does not recede without manipulation.

Leucorrhœa has persisted from the date of the protrusion. The catamenia occur every month, but the discharge is excessive, and lasts for seven days. Micturition is difficult when the uterus is down. She received a severe blow on the vulva when a child, and lost much blood by the injury; has had no other illness. On examination, Mr. Brown found that the uterus, vagina and bladder protruded completely, the uterus being larger than natural, and the os much ulcerated. March 5th, The patient having been placed under chloroform, and the uterus returned, the usual operation of taking out pieces from the sides of the vagina in the situation of the labia minora, and of denuding the posterior part of the vagina and elongating the perinæum was performed. The usual aftertreatment was followed up, and late in the evening of the 7th, deep sutures were removed. On the 9th, the bent catheter was removed, and the urine ordered to be drawn off every three hours, in the ordinary way, and the interrupted sutures were also removed. From this date the patient steadily progressed towards recovery, and seven weeks after the operation, was discharged from the hospital completely cured. Mr. Brown related this case as being one of unusual interest, from the fact that she was only twenty-one, and had never aborted or borne children. Mr. Brown observed that no consideration of inconvenience in any future child-bearing would influence his opinion as to the propriety of operating, because her sufferings were so severe as to prevent her from earning her living by her usual occupation.

REPORTS OF CASES OF PURPURA HEMORRHAGICA, FROM FRIGHT—*By T. Ogier Ward, M. D.*—The author stated that his object in bringing these cases forward was to show that this affection, which is usually the result of long continued depression of the vital powers, may be produced in the course of a few hours, by a violent mental shock.

The first case related was that of a child four years of age, which was extremely alarmed by having been corrected at school. Three days after, without any other assignable cause except the alarm so created, the child had an eruption of petechial spots, which spread over all parts of the body and limbs, and in seven days after it died of a sudden attack of convulsions, terminating in coma, and dependent on the effusion of blood into the cerebral hemispheres.

The second case was that of a boy, who, when walking in the fields, was attacked by a horse, and fell but did not appear to have sustained any material injury. He was extremely alarmed, and on his return home his

nostrils began to bleed, and, when undressed at night, he was found to be covered with numerous larger and smaller purple spots and patches. He passed a restless night, crying during sleep about the horse, and the following day had febrile symptoms, with engorgement of the liver, and passed blood by stool. He recovered after an illness of about a fortnight's duration.

The third case was quoted from a lecture by Dr. Seymour, published in the Medical Gazette.

The author concludes his communication with some remarks upon the probable cause of the sudden change in the condition of the blood, in cases of this description, and he concluded that the affection was more likely to occur in children and females, from the smaller proportion of solid materials which their blood ordinarily contains.

In answer to the President, Dr. Ward stated that in the case of the little girl, he did not think that extravasation was caused by the blow on the head. She appeared to suffer more from fright than from the severity of the punishment.

Dr. Stewart said the hemorrhage into the brain might occur to some extent independently of direct injury. He remembered a case of death from purpura, in an adult, in which, after death, the effusion into the brain was found to be excessive; the septum of the ventricle was broken down, and the central portion of the brain filled with enormous clots of blood.

Mr. Henry Lee mentioned the case of a child who had broken its leg and shortly afterwards died. There was considerable extravasation of blood in the liver, and also about forty small extravasations under the skin. These, he thought, might be the result of some injury, but on examination he found that the effusion was in the cellular tissue under the skin. He was unable to account for these extravasations, but he thought they bore some analogy to the case mentioned by Dr. Ward.

STONE IN THE BLADDER—*Lithotomy—Cure—*(Under the care of Mr. Birkett.)—It is a singular fact that a large proportion of the cases of stone operated upon in the London hospitals are sent up from the country, and not unfrequently the patients are in the enjoyment of comparatively robust health. Whether this may depend upon some peculiar diathesis, consequent upon the manner of living in a country district, we will not take upon ourselves to say; but the fact of the greater frequency of stone in the country as compared with towns and cities, is one tolerably apparent, and

worthy the attention of our hospital surgeons, more especially in a statistical point of view. The subjoined case was one of this character, and, as might be expected in individuals of a robust habit of body and healthy aspect, the urine possessed acid properties, with occasional deposits of the lithates. The symptoms of stone were at no period very urgent, unless on taking violent exercise, when the urine became mixed with blood. Lithotomy was performed by Mr. Birkett, and a urid acid calculus was extracted. With the exception of some severe pain in the bladder on the day of the operation, consequent upon the plugging of the wound by coagulum, the case proceeded to a satisfactory termination.

J. M——, aged 58, was admitted into the Luke ward on November 7th, 1855, under the care of Mr. Birkett. His occupation was that of a farmer and innkeeper in a village in Kent. He had enjoyed very good health, and he had a robust and healthy aspect.* He said that during the last two or three years he had experienced a slight difficulty in micturition, occasionally, the size of the stream being as usual. Twenty months before, after taking violent horse exercise, he felt a great desire to pass urine, and when doing so he observed that blood was mixed with it. Its passage was effected with difficulty and pain, but after a time it became clear and of the usual color. From that time to the present, whenever he has used any unusually violent exercise, blood has been mixed with the urine. He has occasionally observed a little red deposit in it, but no mucus precipitates from it. He does not complain of any pain in the lumbar or pubic regions, but only in the urethra while passing urine. This act he is obliged to perform about every two hours, and generally a few drops of urine escape in the intervals. Sometimes the stream is suddenly arrested. Appetite very good; the bowels are relieved regularly.

Nov. 8th.—A stone was easily detected with a sound.

18th.—Frequent necessity for micturition continues; urine acid; specific gravity 1024, deep brown red tint, scarcely any sediment. The bladder was injected to test its capability of retaining sufficient water to enable lithotritry to be performed. It would not, however, retain half a pint for any length of time. The bowels being costive, he was ordered an aperient dose.

20th—1 P. M.—Mr. Birkett performed Lithotomy, the patient being under the influence of chloroform. Ligatures were tied on four bleeding arteries. A stone consisting of uric acid was removed. It was oval, flattened on two sides, and about an inch in its longest axis. Two knives

were used in the operation; the knife with which the bladder was incised had a narrow, straight blade, contracting towards the point, which was blunted. Half an hour after the operation, hemorrhage took place, but was soon arrested by pressure, and the application of cold. A grain of opium was ordered. Three P. M.—As he complained of great pain, and was very restless, he had forty drops of laudanum. Five P. M.—His cheeks were very pale, and he was much excited and very restless, ordered another grain of opium. Ten P. M.—He complained of intense pain above the pubes, and of an urgent desire to pass urine. None had passed through the wound, which was clearly plugged with coagulum. Mr. Birkett passed a large flexible catheter into the bladder, and through this blood and urine flowed. The patient immediately obtained relief, the pain entirely subsiding after a few minutes. At midnight he took a drachm of laudanum.

21st.—He passed a tolerably good night. No bleeding and no urgent desire to pass urine, although at half-past nine some had passed through the wound. Aspect good; pulse regular, steady, but not very full. Half-past one P. M.—Urine mixed with blood flowed freely through the wound. Ten P. M.—Is very comfortable. Pains occasionally, particularly as the urine flows over the wound; pulse steady, 90, compressible.

22d.—Slept well last night; no pain; appetite good; skin moist; tongue slightly furred; pulse 80.

23d.—Not an untoward symptom. From this date he gradually became convalescent, but on the 29th there was some hemorrhage from the urethra. The wound was slow in healing, not being perfectly closed until the thirty-fifth day after the operation.

On the 29th of December, he returned home cured.

CARBONIC ACID AN ANÆSTHETIC. — At a regular meeting of the Academy of Medicine of New York, March 5th, 1856, Dr. William Parker, President, a communication was read from Prof. Simpson, of Edinburgh, addressed to the Academy, "On Carbonic Acid Gas as a Local Anæsthetic in Uterine Diseases," etc.

It appears that Prof. Simpson was led to the use of carbonic acid gas as a local anæsthetic in painful conditions of the vagina, uterus, and neighboring parts, from reading the case of a lady, treated by Dr. Rossi, of Italy, and reported in the second edition of *Pereira's Materia Medica*, vol. 1, p. 155. In this case there was no organic disease and merely an in-

creased irritability, which was completely relieved by the injection of carbonic acid gas.

Prof. Simpson has frequently resorted to this treatment within the last two or three years; and, though not always with success, yet frequently with great relief, and occasionally with immense benefit. Several cases were given in illustration. One lady who had been bed-ridden for years from pain, and bearing down when standing erect, was almost entirely cured by injections of this gas.

His method of applying it is, to use a bottle having a flexible tube attached to the cork. The materials used for generating the gas are tartaric acid, six drachms; bicarbonate of soda in solution, eight drachms; and water six ounces. The injection may be used several times a day. Other materials may be used.

Prof. Simpson adds, that the employment of carbonic acid gas as a local anæsthetic to the uterine mucous surface and other parts of the body, is not a recent discovery. Dr. Dewees, of Philadelphia, speaks favorably of it in his work (*Dis. of Fem.*, p. 269). Prof. Mojon, of Geneva, has used it frequently, and with decided advantage.

Referring to ancient writers, the author is disposed to consider the practice of burning certain aromatic and medicinal herbs, and applying the fumes to the interior of the vagina by means of proper tubes, to be but another phase of this practice—as carbonic acid is the result of such combustion.

He also ascribes the beneficial effects of mineral waters, in many cases, at least, to the topical application by means of baths and injections of these waters, which generally hold in solution large quantities of carbonic acid. Female patients have assured him of the relief they experienced from uterine pains, while using injections of the waters of springs, as practiced at different German baths. The same is true in certain cutaneous diseases. The common effervescing draught, in gastric irritability and nausea, acts on the same principle. The injection of carbonic acid gas in dysentery, as practiced with success, by Hey, of Leeds, in 1772, Perkins, etc., is directly in point. The benefit of the common yeast poultice, which gives rise to carbonic acid gas, may be similarly explained. Many other examples were alluded to in the paper, showing how frequently this agent is used in practice without recognition of its anodyne properties.

Dr. Detmold remarked that members would recollect that, about the year 1847, he called the attention of the Academy to certain propositions,

which he then made, proving quite conclusively that carbonic acid gas is the efficient agent in causing anæsthesia. The carbonic acid may be given as such, or one of its chemical ingredients may be so administered, that, finding in the blood the other constituents of this compound, carbonic acid gas is generated, and anæsthesia, to a certain extent, is the result. Thus we may administer oxygen in large quantities, in the form of nitrous oxyde (protoxide of nitrogen, or laughing gas) which has all the chemical reactions of oxygen, but is much more soluble in water and the serum of the blood than pure oxygen, and, therefore, is much more readily taken up. This compound, meeting with the carbon of the blood, carbonic acid gas is formed in large quantities, with the production of anæsthesia to a certain extent. Or we may, on the contrary, administer the carbon, as the oxide of carbon or any of the hydro-carbons, alcohol, the ethers, etc.; in this case the blood again furnishes the other constituent of carbonic acid, oxygen, and anæsthesia is again the result.

The stage of excitement corresponds to the period of combination of these elements and the formation of carbonic acid gas. If the gas is administered as such, there will be no stage of excitement, but if the constituents combine slowly, and the gas is generated in limited quantities, there will be a corresponding stage of excitement. Thus, in the stupor of drunkenness, carbonic acid is exhaled in normal quantities, but as the stupor passes off, large quantities of that gas are exhaled. The venous state of the arterial blood, during anæsthesia, is another proof that carbonic acid is being generated in large quantities. If it is true that in post mortem examinations of those dying while under the influence of chloroform, bubbles of air are found in the heart and blood-vessels, it is highly probable that this air is carbonic acid gas, unless, perchance, it has entered the circulation by some mechanical lesion.

The only means in his opinion, of any avail in restoring a patient from profound or fatal anæsthesia, is artificial respiration, or such other means as, by exciting reflex action, will restore respiration, and thus hasten the elimination of the carbonic acid gas. It has been recommended in threatened or apparent death from anæsthesia, to resort to the inhalation of oxygen or nitrous oxyde. Reasoning from the premises which he had given, such remedies would be in the highest degree dangerous. To satisfy himself in regard to this fact, he had made numerous experiments upon animals, and invariably found a fatal issue hastened by administering oxygen.—[*N. Y. Jour. of Medicine.*

At a subsequent meeting Dr. Detmold favored the Academy with a written exposition of his views of the rationale of the action of chloroform, sulph. ether, and nitrous oxide, the three agents employed for the purpose of producing anæsthesia. He attributes the action of all of them to the production of carbonic acid gas *in the system*. The first two supply the carbon, which absorbing oxygen from the blood, and the last supplying oxygen, which absorbing carbon, in either case carbonic acid is the result, which by its action on the living organism, produces anæsthesia. This theory, though not absolutely susceptible of demonstration, is yet apparently based on a logical foundation, and finds a seeming confirmation in a number of well-known facts; indeed it was elicited by the allusions made to the anæsthetic properties of carbonic acid, by Prof. Simpson in his recent paper, of which I gave an account in my previous letter.—[*Charleston Journal*.

PNEUMONIA DISCUSSED BY THIRTY-THREE APHORISMS—*By M. Bouchut*.—Our readers will be interested in the perusal of the admirably condensed series of aphorisms taken from the excellent work on Diseases of Nursing Children, by M. Bouchut. This mode of impressing a subject on the memory is very effective and often employed by the eminent author of this treatise. We are pleased to see that a translation of the work is announced by Dr. Bird, of New York, from the publishing house of the Messrs. Wood.

Primary pneumonia, which is also called pneumonia d'emblée, is rare in children at the breast.

Pneumonia usually follows simple bronchitis, or bronchitis complicating fevers, or acute febrile diseases.

Primary pneumonia is usually lobar.

Consecutive pneumonia is always lobular.

Lobular pneumonia is sometimes discrete, sometimes confluent.

The pneumonia of children at the breast is almost always double, and usually attacks both lungs.

Lobar or lobular pneumonia is observed under two anatomical forms, slightly differing as to structure; these are intra-vesicular and extra-vesicular pneumonia.

Intra-vesicular pneumonia, usually primary, leads to congestion and thickening of the walls of the cells of the lung, with the formation of an internal plastic deposit, which constitutes the character of red and gray hepatization.

Extra-vesicular pneumonia, always consecutive, only produces congestion and thickening of the walls of the pulmonary vesicles, without fibrinous plastic secretion in the interior of these vesicles.

Chronic pneumonia, more common in the infant at the breast than in the adult, is always lobar.

Pneumonia often engenders the formation of fibro-plastic miliary granulations in the interior of the cells of the lung, in lymphatic or serofulous children, or in the issue of parents tainted with serofula.

The development of lobular pneumonia is favored by the crowding of children in the wards of a hospital.

Ordinary and frequent cough, accompanied by fever and anhelation, should make us fearful of an invasion of pneumonia.

Expiratory, groaning and jerking respiration is a certain sign of the existence of confluent lobar or lobular pneumonia.

Panting respiration, accompanied by a continual movement of the nostrils, is a sign of pneumonia.

Dullness of the chest is generally but slightly defined in the pneumonia of children at the breast.

When dullness of the chest exists in a young child with a very bad cold, pneumonia should be feared.

Dullness confined to one side of the chest in a young child rather indicates pleurisy more than pneumonia.

The subcrepitant rale which accompanies the cough, the fever, and anhelation, confirm the diagnosis of confluent lobular pneumonia.

Bronchial respiration, which is rare in children at the breast, always belongs to lobular pneumonia, and sometime to confluent lobular pneumonia.

Bronchophony, that is to say, the resounding of the cry, indicates that pneumonia has arrived at its last stage.

The exaggerated vibration of the thoracic walls at the time of the cries, indicates pneumonia, whilst their absense on the contrary, points out the existence of pleurisy with considerable effusion.

The acute or moderate fever at first continued, presents numerous exacerbations in the course of pneumonia.

Primary pneumonia, or *d'emblée*, is less severe than consecutive pneumonia.

Pneumonia consecutive to simple pulmonary catarrh, is often cured.

Pneumonia consecutive to measles, scarlet fever, small-pox, is a very serious disease.

The pneumonia of children at the breast is, especially, a serious disease, in consequence of the complications which precede or follow its development.

The pneumonia of children at the breast has a great tendency to pass into the chronic state.

The pneumonia which is consecutive to the development of fibroplastic miliary granulations, or to tubercular granulation, is usually fatal.

Expiratory, groaning and jerking respiration, accompanied by movements of the nostrils, announces that the life of the child is in great danger.

The swelling and œdema of the hands, or of the feet, which comes on in the course of pneumonia, indicates an approaching death. (Trousseau.)

The return of the secretion of tears, which has been suspended in the attack of pneumonia, is a good augury for its favorable termination.—(Trousseau.)

One or two leeches at short intervals, several blisters in front of the chest, and doses of ipecacuanha, are sufficient for the cure of simple acute pneumonia.—[*Virginia Med. Journal*.]

METHOD FOR EXTRACTING VOLUMINOUS CALCULI FROM THE BLADDER.—A report was lately read before the Academy of Medicine of Paris, by M. Ségalas, on two cases of lithotomy, submitted to that learned society by M. Carathéodory, Surgeon to the Sultan, and Professor of Surgery at the Medical School of Constantinople. The patients were respectively 26 and 30 years of age, and were operated upon by Dupuytren's bilateral section. On the forceps being introduced into the first case, the stone was found so large, that the surgeon, greatly embarrassed, resorted to a second vertical incision through the centre of the prostate and the upper half of the sphincter ani. The stone was then removed through this semi-artificial and natural aperture, and the patient made a good recovery. The calculus broke during the extraction, each half being the size of a hen's egg. In the second case, the stone was not only large, but adherent, probably by means of a cyst, to the parietes of the bladder. The same secondary incision was made as in the first case, the calculus raised with a spatula, and finally removed. The operator had also to remove calcareous concretion from the spot where the stone had been attached. This second patient also recovered perfectly.

ON THE USE AND ABUSE OF CHEMICAL BATHS—*By G. Huff, M. D.,
Lexington, Kentucky.*

To the Editor of the New York Medical Times :

DEAR SIR—Permit me to hand you some remarks on the use and abuse of chemical baths, which may lead some of your readers to give the subject due consideration. Very respectfully yours.

G. HUFF.

When we consider the deleterious effects of mercury upon the constitution at times, especially when its use has been injudiciously persevered in for some time, in small and often repeated doses, in certain constitutional diseases in which mercury is commonly resorted to as a specific, we are led to fear that it often proves to be a greater evil than the disease itself. And if we take into view the facility and certainty of the galvanic action in the elimination of the deleterious metals from the human system, and its practical use to the community, its application must rank as one of the most valuable discoveries in modern therapeutics. I have observed, however, through life, that the more valuable any discovery to society, the greater its abuse, and in no case has this been more fully verified in the healing art within the last half century, than in the transference of metals from the human system. This branch of the profession is left entirely too much in the hands of charlatans.

Facts proving that deception has been practiced to a great extent, have come within my own observation ; and recently the reputed experience of the editor of the Louisville (daily) Journal, in the supposed efficacy of chemical baths, and more especially his proposed test of their action by means of ammonium, have caused great sensation in this part of the country. These circumstances led me to make an experiment with a rabbit, an animal that had never taken mercury in any form ; and I herewith forward you the result, viz : a copper plate, a portion of which is nicely coated with a light metal generally known as tin. By the mercenary, a coating like this is continually palmed off for mercury taken from the system of those who have supposed themselves surcharged with that metal. Those persons who practice such feats of legerdemain, invariably use metallic bath-tubs, the same as was done by myself in the experiment with the rabbit, and the coating of light metal upon the piece of copper is simply a deposition of tin from the tub ; and the process was nothing else than electroplating, with a rabbit in the solution.

Then, again, the experience of the editor referred to proves nothing, as

there was no evidence of mercury having been extracted. The sulphide of ammonium, the test relied on by him, will give a black precipitate with lead, copper, bismuth, tin, and lastly, iron, provided the free acid be neutralized, which may be done in this experiment, by adding excess of sulphide of ammonia, and then the black sulphide of iron will be precipitated as well as with mercury. The precipitate of mercury in a *dilute* solution turning instantaneously black is not characteristic of that metal, as may be tested by any person by merely putting one drop of a solution of corrosive sublimate in a tumbler full of water, and having stirred it, then adding a few drops of sulphide of ammonia, when it will be seen that the precipitate changes from a light-yellow quite rapidly to black; but unless the black sulphide be reduced, and mercury obtained from it in a metallic form, the test is not conclusive. Had a little of the supposed "black sulphide of mercury" been dried and mixed with cyanide of potassium or carbonate of soda, and heated to redness in the sealed end of a small glass tube, the mercury, if present, would have been sublimed in metallic form, in the cold portion of the tube. But it does not appear that this was done, and consequently there is no conclusive evidence that mercury was obtained from his system, but, on the contrary, he was probably deceived. The black sulphide might have been either the protosulphide of tin, or of iron, which change may take place under the following circumstances:

1st. If a patient be placed in a metallic bath-tub of copper or iron tinned, containing water with some hydrochloric acid, with a bright plate of copper under his feet, and the negative pole connected with it, and the positive pole with the bathing-tub, in the course of fifteen minutes or less after the battery is put in action, the copper plate will be completely coated with tin, save the portion that was covered with his feet; and if a tumbler full of the solution of the bath be tested with a few drops of sulphide of ammonium, it will give a black precipitate of protosulphide of tin; which it would not have done previous to the battery having been put in action.

2d. The same effect will be produced if the patient has the negative pole in his hand, with his feet upon a polished plate, *it being insulated*, and the positive pole in contact with the bathing tub. The person in connection with the negative pole merely serves as an electrode to the plate upon which a deposition of metal (tin) is wanted for deception. This experiment may be made very readily by any person having a battery of sufficient power. Persons in connection with a battery are in this way led

to believe that the metal thus deposited upon the plate beneath their feet passed from their system, as they felt during the process (of electroplating) as if they were "pierced with ten thousand needles." This would answer a very good purpose if such persons would recover from their infirmities in consequence of their belief. But, alas for the poor dupes! they remain without benefit. I am acquainted with a person who has reaped an abundant harvest within the past seven months by such duplicity. And I fear, as a general thing, the profession is not so well posted in *electro-chemistry* as they should be; as I have known some physicians to witness the *modus operandi* as aforesaid, and supposed the deposit of tin upon the copper was the "Simon pure" from the human system.

3. If the zinc bathing tub be used under the same circumstances as the preceding, the same effect upon a polished plate will follow, and the solution will give a blackish precipitate, which is owing to the iron always being present in the commercial zinc, which latter, when pure, gives from its neutral solution a white precipitate. It is always necessary to add the sulphide of ammonium in slight excess to neutralize the acid of the bath, as the iron will not precipitate in acid solutions. If there is much organic matter present in an acid bath, the sulphide of ammonium will give a dirty sulphur precipitate.

It is certain that very few persons in any community are aware that tin can be eliminated in solution from a bath tub, and deposited upon a plate of copper within the said tub; hence the credulity of the public is taxed by those who are greedy of gain. In order to manage fairly and effectually those persons who suppose themselves surcharged with mercury, all metallic bath tubs should be dispensed with, and those only used which are made of a non-conducting material, such as porcelain, stone, glass or marble. A simple porcelain foot-tub is as good utensil as can be used for the purpose, as it is not at all necessary to immerse the whole person; the immersion of the feet in only a few inches of the solution being all that is required for the process of transferring metals from the human system.

It is truly unfortunate that the medical profession should be so prejudiced against other modes of treating diseases than such as they learned in early life, just as if science is not progressive. If such prejudices did not exist, the public would not suffer so much by empiricism; and if they patronize men without science, it is certain that they have lost confidence in legitimate practice.

LEXINGTON, KY., April, 1856.

A CASE OF NECROSIS OF THE TIBIA—*By A. Monteiro, M. D., Goochland Co., Va.*—On the 16th of December, 1853, I was requested by Mr. Pleasant Parish to visit his son, a youth, aged 13. I found this poor boy in a pitiable condition indeed, manifesting the constitutional symptoms of scrofula in its most terrible form, besides its local foot-prints about the cervical region. It was one of the symptoms of this general disease that I was particularly requested to examine and prescribe for. The right leg and foot were immensely swollen, the tibia, for about four inches of its middle third, completely exposed, and the periosteum totally destroyed.

The integument and cellular tissue had retracted from the tibia and united over the fibula, protecting this bone thereby from the disorganizing processes at play in its vicinity.

Nature, ever provident and careful in protecting her living tissues from the poisonous contamination of the dead, had already in this case attempted the removal of this bone. It was severed by the sloughing process in two places—the one, below the insertion of the tendon of the quadriceps extensor cruris muscle above, and the other, two inches above the maleoli below. The extremities of the bone were firmly bound down by the soft tissues every where, except the four inches of its middle third, before mentioned. The limb was swollen to nearly three times the circumference of its fellow, and various scrofulous ulcers distributed over its surface.

This state of things had lasted for 18 months, the poor sufferer during most of that time being confined to bed, with the diseased limb resting upon a pillow. In this posture, with the large bone severed by ulceration, and the small one softened, the limb was bent, by its own gravity, out of the direct line, and curved outwardly.

Other physicians, who had been consulted, made some local application to the diseased part; and entertaining no hope of saving the limb, advised immediate amputation. I must confess, that on first sight I also thought, with my professional brethren, that amputation was the only remedy. I have strong faith in the power of science and art, when ingeniously and skillfully brought to bear upon human physical infirmities. However, I saw no hope to encourage a prescription for this poor fellow. Notwithstanding the chances against me, I brought the armamentum medicum to bear against this terrible disease in the following manner:

I considered the constitutional disease as the fountain of all the local phenomena. Hence, made prompt use of the several preparations of iodine, and its compounds of iron, of nitrate of silver, of quinine and sarsa-

parilla. After a continued and energetic use of these articles for several weeks, together with constant applications of cold water to the limb, I discovered a marked improvement in all the most dangerous symptoms.

I now entertained some hope of saving the limb by removing the tibia, although knowing well that the head of the fibula could not come properly under the line of support for the body; yet so great had been the inflammation of the entire limb from the knee to the ankle, that I thought it probable the heads of the two bones would fuse into permanent adhesion, and by thickening of the fibula, make a substitute for the chief bone of support. However, as I could find no account of a similar operation in any of the works I have access to, I thought the chance a desperate one, at best. I proposed the extirpation of the bone as a measure preferable to amputation, calculating, in case of failure, at any subsequent time to amputate.

I used Hey's saw, and cut through the bone at or about the junction of its middle and upper third, and extricating the two pieces, causing the patient but little pain. The soft parts healed more satisfactorily than I had anticipated. With the use of a strengthening splint and a crutch, he was enabled to walk about the house in two months.

The fibula seems to have grown to the size of the tibia, or even larger; and now, for nearly three years, he has used no artificial means of locomotion whatever. He walks to school (two miles) at this time, every day, and has never complained of that once useless limb failing to perform its duty, or giving him the least uneasiness.

It may be well to mention, that frequently, prior to the operation, there was an effort towards the formation of new bone, by the deposit of ossific particles in various directions; but I was most encouraged by the greatly improved appearance of the sloughing surfaces which supervened after my general treatment had been persisted in for some time.

A recent examination of this limb satisfies me that the superior and inferior extremities of the tibia are firmly adherent to the fibula, and that the latter bone has become greatly strengthened in its middle third and increased in size, enabling it to bear with safety the weight of the body. Nature has also made an effort to unite the two ends of the tibia by a new formation of bone, so that the length of each has been nearly doubled; but the soft parts have entirely separated the ends of the tibia, and are firmly attached to the central portion of the fibula, so that it is impossible that the integrity of the tibia can ever be entirely restored.—[*Virginia Med. Journal.*

ALSIDIUM BLODGETTII IN CONSUMPTION AND SCROFULOUS DISEASES.

Editor New York Medical Times :

DEAR SIR—I wish to direct the attention of the Medical profession to a marine plant discovered by Dr. A. E. Rue, on the coast of Australia. Dr. R. is very confident that he has discovered some very valuable medicinal properties in this plant, and states, in the most positive terms, that it is a specific in consumption and scrofulous diseases.

I have every confidence in Dr. Rue as not being disposed to speculate on the *Materia Medica*, or attract attention by new and fashionable therapeutic agents; and through his kindness I have been furnished at different times with the medicine as prepared and used by him, and also a specimen of the plant. Upon examination I find the same plant was originally discovered by Dr. Blodgett, and is accurately and minutely described and classified by Prof. Wm. H. Harvey, of Dublin University, in his classification of *Algæ*. The following is his description of it: "*Alsidium Blodgettii*—frond subcompressed below, terete above, decompound pinnate; pinnæ alternate, patent, close, virgate, the lowest very long, set with short setaceous, spinous-toothed, alternate, distichous ramuli; upper branches short and sub-simple; conceptacle pedicellate, inflated, urceolate, variously placed on the ramuli."

I have used this medicine with the most gratifying results in many cases in my own practice where there was every sign of *tubercular deposition*, some of which were in quite an advanced stage; yet not satisfied with my own experience, I placed it in the hands of a few medical friends, who were equally well pleased with its success in these diseases. From what I consider the duty of every medical man, I have decided to make these facts known to the profession, hoping that any additional facts pertaining to the history or medicinal properties of the plant will be reported.

Yours, etc.,

BENJAMIN PALMER, M. D.

PITTSFIELD, MASS., July, 1856.

Palmer's trial has had the effect of inciting the profession to the discovery of several new tests for the presence of strychnia. We place two of them on record:

THE FROG TEST FOR STRYCHNIA.—I have been enabled to detect the 1-2500th part of a grain of the acetate of strychnia. The young frog fresh from the pools is the most susceptible to the influence of this extra-

ordinary agent. All young animals are more susceptible than the adult of the same species. The frog is the most susceptible of all. It is not less strychniscopic than galvanoscopic. In proceeding with an inquiry, we should begin with the frog, because it is the most detective. We may proceed to use other animals, but these can only detect a larger dose of the poison, and they are in nowise more satisfactory. The phenomena in them are less distinctive even than in the frog. In one case I gave one-sixth of a grain of the acetate of strychnia to a cat. It proved fatal. Some time having elapsed, Mr. Lloyd Bullock prepared the contents of the stomach, and we induced strychnism in three frogs in succession. The dose of poison would scarcely have affected another cat or rabbit. A kitten was killed by one-fiftieth part of a grain, and an adult cat by one-thirtieth of a grain of the acetate of strychnia. This would, I should think, not have been detectable by another kitten or cat, as taken from the stomach. But many times less would be detectable and demonstrable by means of the strychnoscopic frog.—[*Dr. Marshall Hall, in Lancet.*

TESTS FOR STRYCHNIA.—So many inconsistencies and inaccuracies have lately appeared in the public papers respecting the discovery of strychnia in the dead body, that I think it right to say that there is not any material with which it can be mixed in the animal body, or process of putrefaction that can in any way interfere with its extraction and recognition. Tartar emetic, common salt, a little nitre, bile, sugar, and a score of other things, will destroy its reaction when the tests are performed by those who are not acquainted with the principles of chemistry, but in the hands of the adept such difficulties are instantly overcome.

As to the so-called fallacies of the color-tests for strychnia, these also are fallacies only when the tests are improperly performed; but, to do away with all possible sources of doubt and fallacy from the action of external reagents, I may state that the putting of a little strychnia with sulphuric acid, on a piece of platinum foil, then connecting the foil with the positive pole of a single cell of Grove's or Smee's battery, on touching the acid with the negative pole, terminating in a piece of platinum wire, the violet color so characteristic of strychnia is instantly produced.

This mode of experimenting was suggested by the fact that the color-tests for strychnia are due to the action of nascent oxygen; and so delicate is the galvanic test, that it will discover the presence of the 10-000th

of a grain of strychnia; and besides this, its very nature is such as to do away with all possible sources of fallacy.

HY. LETHEBY.

LABORATORY, LONDON HOSPITAL.

A NEW INSTRUMENT FOR INDICATING THE MOVEMENT OF THE HEART.—Dr. Scott Alison has exhibited an instrument to the Royal Society, which he calls a sphygmoscope, and employs it to indicate the movements of the heart and blood vessels. The construction is simple: a small glass tube, about a foot in length, open at the upper end, and with a graduated ivory scale affixed, terminates below in a hemispherical or trumpet-mouth, bent to a right angle with a tube. This mouth is covered with a water-proof membrane, and, being filled with colored water, is to be pressed against the ribs where the movement of the heart is most sensible. At once the water starts up the tube, in which it is seen to rise and fall with every beat; and thus all the movements of the vital organ, whether regular or irregular, may be distinctly viewed and measured by means of the scale. A smaller instrument of the same kind will show the beating of the pulse or of any other blood vessel, however small; and the beats may be compared with those of the heart. They are perceptible even at the end of an India rubber tube two feet in length. Already some new physiological conclusions have been arrived at with regard to the circulation of the blood, and a further insight into vital action is hoped for from the general use of the sphygmoscope among medical practitioners.—*Boston Med. and Surg. Journal.*

ON THE SEX AND HEREDITARINESS OF TWINS.—M. Baillarger states that in 256 deliveries, the sexes were thus distributed:—

Two boys in 100.

Two girls in 58.

Boy and girl in 98.

Thus the union of two boys is almost twice as frequent as is that of two girls, while the union of a boy and girl is almost as frequent as is that of two boys; the boys thus surpassing the girls (298 to 214), by more than a third, while the proportion in the entire number of births is 17 boys to 16 girls. It may also be remarked, in reference to the great preponderance of male over female stillborn children (17 to 12), that a considerable contingent is contributed by twin births to these.

Twin births are hereditary, in certain families, under different conditions. Thus a great number of facts prove that the daughters of mothers who have borne twins have twins themselves, a generation being sometimes missed, when the granddaughter has one or more twin pregnancies. Facts which M. Baillarger has accumulated also tend to prove that this hereditary predisposition may be transmitted to the sons, certain men having the faculty of procreating two children, when no hereditary predisposition to this exists on the part of the mother.—*Med. Times and Gaz.*, June 28th, from *L'Union Médicale*, No. 142, 1855.

RARE OBSTETRIC CASES.—*Separation of the Entire Cervix Uteri.*—Dr. Taylor gave the history of an interesting case which lately came under his observation in the lying-in ward of Bellevue Hospital. A female began to have the premonitory pains of labor, on Tuesday, the 16th instant. On Saturday, when Dr. Taylor first saw her, it was fully dilated; the head presented in the first position, and regular labor pains occurred every twenty minutes. The posterior lip of the uterus felt ragged like the after-birth, and the pulsation of the foetal heart could not be detected.

As the pulse of the mother numbered 120, the head of the child was large, and the membranes had been ruptured twenty-four hours; delivery was effected by the forceps. Expulsion of the placenta immediately followed, and then a slight foetid discharge escaped with a fleshy mass which, on examination, proved to be circular, consisting of both anterior and posterior lips of the uterus. The diameter of the lips varied from half an inch to an inch, that of the enclosed space was three or four inches.

The specimen which was shown to the Section had been examined under the microscope, and its structure was fibrous. Dr. Taylor added, that cases of partial sloughing of the uterine neck are not rare, but he recollected having read of only one case in which the whole circumference sloughed off. It was remarkable, too, that the detachment occurred immediately after delivery of the child.

The patient, at present, (16th) is doing well. The discharge this morning was natural, and the pulse stood at 108.

Conception following the administration of Guaiacum.—Dr. Hubbard reported the case of a lady, whose catamenia had always been painful, and who, though married eight or ten years, had had no children. About nine months since, he prescribed for her the vol. tinct. of guaiac, according to the formula of Dewees. She commenced taking this about three weeks

before the menstrual period, and as the catamenia did not occur, suspicions were entertained of pregnancy, which were well founded, as she is now near her confinement. He had used the same agent in similar cases with success. Probably the pathological condition in these instances was that of neuralgia or rheumatism.

Dr. Taylor has also used guaiac, in cases like those mentioned, and had known conception to take place in consequence, after years of sterility.—*New York Journal of Medicine.*

VACCINATION IN RELATION TO BLINDNESS.—Statistical researches show us that, prior to Jenner's discovery, of 100 cases of blindness, 55 were due to small-pox; and Dr. Dumont, physician to the Hospice for the Blind, has recently supplied an interesting account of the progressive decrease of that proportion. Among the blind of 60 years of age, he finds this variety of cause in 12 per cent; in adults, it only exists as 8 per cent.; and, in children, only as 5 per cent. We may take as a mean, counting all ages, about 7 per cent., which, as at the commencement of the present century, the proportion was 35 per cent., exhibits a diminution of 28 per cent.—*Ibid*

BROMINE AS A SPECIFIC IN PSEUDO-MEMBRANOUS AFFECTIONS.—M. Ozanam, in a paper presented to the Imperial Academy of Sciences, on the 26th of May, announces that bromine is a specific in the pseudo-membranous affections. He has treated successfully fourteen cases, two of which were cases of true croup. He employed either bromine or bromide of potassium. The dose was from one to ten grains a day.—*Med. Times and Gazette, June.*

MEDICAL JOURNALS IN THE CITY OF NEW YORK.—The New York Daily Times of last week, says: "The rumor goes that Dr. Purple's Journal of Medicine and the Collateral Sciences, whose July number has not yet been issued, is *not* to be discontinued. The Medical Times, edited by Dr. Bulkley, will continue until the end of its current volume, after which it will be united with the Journal, and the twain will be edited by Messrs. Purple and Smith. Rumor further adds, that friends of these journals have contributed \$1,000 to keep them going. We are glad of it; for they furnish, during the year, a good deal of valuable professional reading."

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NO. VIII.

THE HAPPY EFFECTS OF DIGITALIS UPON MENORRHAGIA AND UTERINE HEMORRHAGE.

By. E. D. FENNER, M. D.

All Southern physicians have doubtless had trouble enough with cases of excessive menstruation, especially in the course of our long and debilitating hot seasons. According to my experience, the complaint is much more common at this season than any other. Scarcely any painless affection exerts a more depressing influence than this upon the female constitution, or tends to render life more disagreeable and irksome. In its treatment I formerly relied chiefly upon the combination of acetate of lead and opium, the wine of ergot, elixir vitriol, cold topical applications, on muriated tincture of iron, and the like remedies, which we find recommended in standard works, but I have often met with cases which did not yield to any of these remedies until after a long and tedious attendance. My attention having been recently drawn to an extract from the London Lancet, going the rounds of our medical journals, from which it appears that Mr. W. Howship Dickinson had observed remarkably happy effects from the use of digitalis in this complaint, I determined to avail myself of the first opportunity that presented to make a trial of it.

I should state, however, that a little incident, which occurred some eight or ten years ago, served in no small degree to increase my hope of success with the remedy. In traveling through Memphis, Tennessee, I happened to be detained a day or two, and, as is customary with me, spent the most of my time among the highly intelligent physicians of the place; for I generally find physicians to be the most sociable and pleasant companions I ever meet with in my travels. Some four or five of us were enjoying a social chat

at the hotel, one evening, when the conversation very naturally turned upon *physic and physicians*. The late Dr. Christian, of Memphis, a physician of extensive experience and superior practical skill, having died a short time previous, we were discussing his merits, when one of the company related the following incident, illustrative of the man and his practice. He said he had been treating a very obstinate case of menorrhagia, upon which he had exhausted nearly all his resources without benefit to the patient, who was then very much reduced. Dr. Christian was called in consultation, who, after hearing a full history of the case, and all the remedies that had been tried, simply remarked—"I think if you will give the lady ten drops of the tincture of digitalis, every three or four hours, she will soon be relieved." The gentleman never having heard or read of the remedy being used in this complaint, and seeing no indication whatever for its prescription in the low and exhausted condition of his patient, asked the Doctor upon what grounds he could expect any benefit from so depressing and powerful a medicine? To which Dr. C. replied, "he would offer no *reason* for the prescription, nor attempt to explain the *modus operandi* of the medicine, but he had learned from experience that it was a most valuable remedy in such cases, and would therefore advise him to try it." It was tried, and the effect was miraculous. A few doses completely arrested the discharge, and the patient very soon recovered. The narration of this incident made a lasting impression on my memory, and I have frequently repeated it as an instance of *empirical* knowledge, where no connection could be imagined between the *known* effects of a medicine and the case in point, yet followed by the happiest results, as reported by one whom I knew to be a gentleman and a most excellent practitioner. Nevertheless, I confess I never ventured to use digitalis in this disease, until after I saw it so highly recommended by Dr. Dickinson. I have recently prescribed it in some half a dozen cases, and the effects have been so uniformly satisfactory, that I take much pleasure in contributing my testimony in favor of it.

Case 1.—A young woman, of medium size and fine constitution, aged about 24 years, married a second time, and the mother of one child about two years old, consulted me for rheumatic pains, accompanied with menorrhagia, and profuse leucorrhea during the monthly intervals, when there was an interval. She had lived in New Orleans, though not constantly, about two years, and had yellow fever in 1854. I recommended the iodide of potass and wine of colchicum for her rheumatism, and the wine of ergot and cold applications to the hypogastric region, for the menorrhagia.

Both of these affections were ameliorated by the remedies, but the catamenia were only arrested after a flow of eight or ten days. At the next period I was called on again, and then prescribed the infusion of digitalis, an ounce to be taken every four hours until the discharge was arrested; only commencing on the third day, when it was thought the discharge had been sufficient for the occasion. The effect of the remedy was all that could be desired. Three or four doses stopped the discharge, and the patient got through the period with more strength than she had done for many months. She was advised to resort to the same at the succeeding period, after a natural flow of three days, which she did, with happy effect, and she tells me this morning (Sept. 17th) she has never since that had the least difficulty in checking the discharge with the infusion, whenever she thought it excessive or prolonged beyond the customary period in health. She is convinced that the digitalis exerts a powerful control over the discharge.

Case 2.—Mrs. McN. aged about 30 years, married, and the mother of five children, is generally subject to profuse menstruation when not breeding, and has had upon one or two occasions very severe attacks of menorrhagia. I attended her in one of these in 1854, and had to give her so much sugar of lead and opium, before the discharge could be stopped, that she was soon afterwards seized with a violent attack of *lead-colic*. In July last I was called to attend her again, for the same complaint. The discharge had continued about three weeks, and, of course, she was very much reduced. It was then a *real hemorrhage*, attended with the passage of clots and severe uterine pains. Knowing the susceptibility of this lady to the poison of lead, I was happy on the occasion to have command of a remedy that promised more benefit, without incurring the danger of that article. After taking an enema of salts and senna to remove the attending costiveness, I prescribed an ounce of the infusion of digitalis, to be taken every 3 or 4 hours, until the discharge should be checked. The only additional remedy was the application of a towel wet with cold vinegar and water to the pubes and vulva. On the following morning I found her greatly relieved, and two or three more doses of the infusion arrested the discharge completely.

Case 3.—A young quadroon, native of this city, married, and the mother of a child about 18 months old, had her catamenia suddenly interrupted by getting her feet wet. From that time she began to suffer from general indisposition, which continued until the next monthly period. She was then attacked with severe *dysmenorrhea*, for the first time in her life. After the discharge was established, it soon became very profuse, attended with

clots and severe intermitting uterine pains, and distressing pains in the lumbar region. She had borne these troubles about a week when I was called in. I found her extremely nervous; said she had not slept for three days past; there was intense pain in the back, tenderness over the hypogastric region, and costiveness of the bowels. I ordered a strong purgative enema, and after the bowels were freely evacuated, to have an anodyne enema composed of assafoetida, laudanum and chloroform, a warm flaxseed poultice over the lower part of the abdomen, and a sinapism to the loins. This was at night. On the following morning I found my remedies had produced the desired effects; she was greatly relieved from suffering, and had slept after taking the anodyne, but the uterine hemorrhage continued freely. I now put her on the infusion of digitalis, as in the preceding cases, and with the happiest effect imaginable. In twenty-four hours she was entirely relieved.

I have recently prescribed this remedy in four other cases of menorrhagia, and with like happy results; but really have not time at present to give them in detail. I have already seen enough to convince me that this is a valuable remedy for a very troublesome and disagreeable complaint, and one that is worthy of further trial.

It will be seen that I gave the infusion in pretty liberal doses—an ounce every three or four hours—but I have not yet witnessed any unpleasant effect whatever from it. Mr. Dickinson calls an ounce to an ounce and a half a “*large dose*,” and says that when administered in such dose “the discharge never appeared after the second day; when smaller doses, it never continued beyond the fourth day.” He treated seventeen cases in St. George’s Hospital, with the following general result:—“in every case of uterine hemorrhage, unconnected with organic disease, requiring the employment of active remedies, admitted into the Hospital after October, 1854, the administration of digitalis was had recourse to as the sole treatment, and the discharge was invariably arrested by it.”

As has been the case with every valuable therapeutic agent, the discovery of the virtue of digitalis in uterine hemorrhage seems to have been *accidental*, on the part of Mr. Dickinson, at least. “A patient laboring under severe menorrhagia, in St. George’s Hospital, was cured by the infusion of digitalis, exhibited for the relief of cardiac affection, from which she also suffered.” In consequence of this observation, he was induced to give it a further trial in uterine hemorrhage, and with the foregoing happy results. What led Dr. Christian to use this remedy for the same disease,

many years previous, it is impossible for me to say, but I doubt not it was a similar observation, for he was a man of fine perceptive powers and excellent judgment in the practice of his profession. Unfortunately, too many of the best practitioners in our country carry with them to their graves much valuable knowledge that ought to have been recorded for the benefit of mankind. We have no reason to doubt the tincture of digitalis would produce the same effect as the infusion, though we have not tried it.

In regard to the mode in which digitalis operates in controlling uterine hemorrhage, Dr. Dickinson said—"its effect could not depend on the sedative influence of the drug on the heart and arteries—he showed by various experiments and observations, that the arrest of the hemorrhage was due to the action of the digitalis on the ganglia of the uterus, by which the organ was stimulated, and the muscular power fully contracted." We regret very much that these experiments and observations were not published; but there is only a *condensed report* of Dr. Dickinson's paper, communicated by Dr. Bence Jones, to the *London Lancet*, for February, 1856. I hope the few cases I have given may induce others to try the remedy.

P. S.—Since preparing the foregoing remarks for the press, I have met with the following extract relative to the effects of digitalis, which I deem worthy of insertion at this place. It is taken from the *Medical Examiner*, for *Sept.* 1856.

Effects of Digitalis on Generative Organs.—Mr. Brughmanns says, that if from 35 to 50 centigrammes* of pulv. digitalis be given for five or six days, the most complete hyposthenizing effect is produced on the generative organs. He has thus given it with very great advantage to combat erotic excitement, whether due to excitable temperament, sedentary life, stimulant regimen, or the privation or excess of venereal pleasure, etc. He also finds it very useful in subduing the inflammatory accidents that so often accompany syphilitic diseases, and which may be prevented by its early administration. It is pre-eminently useful when phymosis or paraphymosis, chordee, epididymitis, or adenitis are either present or feared.—*Med. Times and Gaz., from Rev. Med. Chir.*

* The centigramme is the fifth of a grain; thus the quantity of digitalis here mentioned is from 7 to 10 grains in the day. I presume, of course, it was given in divided doses of probably two or three grains three times a day.

EXPERIMENTS WITH STRYCHNIA.

By I. L. CRAWCOUR, M. D., and D. WARREN BRICKELL, M. D.

(Continued from the September No.)

Since our last report we have continued our experiments with Strychnia, and offer the results to the fullest extent of our researches.

Under the head of "Class 2," we have to report that we have immersed two large and very active frogs, in one ounce of water, containing one-thousandth of a grain of strychnia, but in neither case was there any perceptible effect produced, even after the lapse of twenty-four hours. Finding that the plan of injecting the solution under the skin is much preferable in every point of view, we have adhered to it in the remainder of our experiments.

Experiment No. 2, Class No. 3—2, P. M., injected a saturated solution of strychnia under the skin of a very large and active frog. In a few moments the respiration became hurried and labored, but the animal was very quiet. Three minutes after 2, touched him with a straw, and he was immediately thrown into the most violent spasms. Four minutes after 2, dead.

Experiment No. 4, Class 5.—9 minutes after 1, P. M., injected a very large and active frog with one four-thousandth of a grain of strychnia. 19 minutes to 2, P. M., animal sitting quietly, but with hurried respiration—touching him with a straw produced decided spasms, to such an extent as to turn him on his back at one time. 2 minutes of 2, quite languid—spasms excited by the slightest touch. Place him on his back, and he makes no effort to turn over.

Experiment No. 5, Class 5.—11 minutes after 1, P. M., injected a large and strong frog with one four-thousandth of a grain of strychnia. 25 min. after 1, P. M., animal sitting quietly, but his respiration has been labored for some minutes. Touched him with a straw, and immediately decided spasms were induced, throwing him over on his back from the erect position. 2 minutes to 2. P. M., quite languid, and content to lie on his back. Slightest touch induces strong spasms.

Experiment No. 1, Class 6.—15 minutes after 1, P. M., injected a large and strong frog, with a clear skin, with one 6000th of a grain of strychnia. 6 minutes after 2, P. M., animal has been sitting quietly, but with labored respiration. Touched him with a straw, and induced decided tetanic spasms. Lies perfectly still when placed on the back, and touching

with a straw induces spasms. 3, P. M., lying on its back, and apparently in same condition as those injected with one 4000th.

Experiment No. 3, Class 6.—23 minutes after 2, P. M., injected a medium sized and very active frog with one 6000th of a grain of strychnia. 29 minutes after 2, slight touch threw animal into violent spasms. 32 minutes after 2, slightest touch induces spasms. and animal is content to lie on its back. Apparently very feeble.

Experiment No. 1, Class 7.—30 minutes after 2, P. M., injected a small but very active frog with one ten-thousandth of a grain of strychnia. 21 minutes to 3, P. M., touched animal, and immediately it was thrown into violent spasms. 11 minutes to 3, violent spasms when touched; lies on its back, with limbs extended.

Experiment No. 2, Class 7.—32 minutes after 2, P. M., injected a small but active frog with one ten-thousandth of a grain of strychnia. 19 min. to 3, P. M., violent spasms produced by touching. 11 minutes to 3, P. M., lies on his back, breathes with difficulty, and spasms easily excited.

Experiment No. 3, Class 7.—15 minutes after 11, A. M., Sept. 14th, injected a medium sized, strong and very active frog, with one ten-thousandth of a grain of strychnia. 27 minutes after 11, violent spasms produced by touching with a straw. Animal sank gradually, being irritated with a straw every few minutes, and was dead in about an hour and a half.

Experiment No. 4, Class 7.—17 minutes after 11, A. M., Sept. 24, injected a medium sized, but very strong and active frog, with one ten-thousandth of a grain of strychnia. 25 minutes after 11, violent spasms produced by the touch. Animal sank gradually, and was dead in about two hours.

Experiment No. 1 — Class 8.—24 minutes after 11, A. M., Sept. 14th, injected a medium sized, but very strong and active frog, with one-fifteen thousandth of a grain of strychnia. 30 minutes after 11, violent spasms produced by the touch. Pursued no farther.

Experiment No. 2 — Class 8.—23 minutes to 12, M., Sept. 14th, injected a medium sized and strong and active frog with one-fifteenth thousandth of a grain of strychnia. 14 minutes to 12, M., decided spasms produced by the touch. Pursued no farther.

Experiment No. 1 — Class 9.—10 minutes to 12, M., injected a large and strong frog with one-twenty thousandth of a grain of strychnia. 5 minutes to 12, decided spasms produced by the touch. Pursued no farther.

Experiment No. 2 — Class 9.—8 minutes to 12, M., injected a medium

sized and very active frog with one-twenty thousandth of a grain of strychnia. In the operation fully one half the solution was ejected by the efforts of the animal to escape, and was lost; but we nevertheless put the experiment in class 9. 15 minutes after 12, M., evident spasm of the lower extremities under the touch, but not such as were considered perfectly satisfactory. 1, P. M., the most decided spasms produced by the touch; animal very languid. Pursued no farther.

Experiment No. 3 — Class 9.—17 minutes after 12, M., injected a large, active and clear skinned frog, with one-twenty thousandth of a grain of strychnia. 27 minutes after 12, decided spasms produced by the touch. Animal soon became languid. Pursued no farther.

Experiment No. 1 — Class 10.—30 minutes after 12, M., injected a small, clear skinned and very active frog, with one-thirty thousandth of a grain of strychnia. 15 minutes to 1, P. M., evident spasms under the touch, but not yet satisfactory. 10 minutes to 1, most decided spasms; animal on its back. Pursued no farther.

Experiment No. 2, Class 10.—17 minutes after 1, P. M., injected a large and strong frog, with one thirty-thousandth of a grain of strychnia. 25 minutes after 1, very evident spasms produced by the touch. 30 minutes after 1, spasms decided.

It will thus be seen that we have clearly proven the fact, that one thirty-thousandth of a grain of strychnia, injected under the skin of a frog, will speedily produce the phenomena of strychnism. Surely this is a most delicate test, and to most persons may appear satisfactory; but it is our intention to push the experiments to their utmost certainty and utility, and we hope to give a report of the same in the November number of the Gazette. In this report, however, we have to announce an experiment which appears to be even more satisfactory than all others we have yet made public. We record it as

Experiment No. 1, Class 11.—14 minutes after 1, P. M., Sept. 14th., we procured from the intestinal canal of a large frog, which had an hour previously been killed by an injection of one-thirtieth of a grain of strychnia, one drop of fluid. This was injected under the skin of a medium sized and very strong frog. 30 minutes after 1, evident spasms produced by touching with a straw, respiration hurried, and animal becoming languid. Within the next fifteen or twenty minutes we frequently induced the spasms, though when we left the animal, at 2, P. M., it did not appear to be sinking.

A CASE OF STONE IN THE BLADDER—OPERATION BY THE LATERAL SECTION—DEATH NINE DAYS AFTER THE OPERATION.

Reported by S. CHOPPIN, M. D.,

Age, as we all know, exercises a marked influence on the result of lithotomy. Mr. Coulson, of London, to whom surgery is already indebted for numerous important statistical facts, deduced from exact observations, established that lithotomy can be looked upon as one of the most successful operations in surgery at early periods of life, a hazardous one at middle age, and an extremely dangerous one at an advanced age. "Mr. Coulson found on analyzing 2,972 cases of lithotomy, that the mortality, at each decimal period, was as follows: below ten years it is one in thirteen, and thence gradually augments from ten to eighty years, to one in nine, one in six, one in five, one in four, one in 3.65, one in 2.71."

The subject of this observation, Col. S. W. O***, a native of New York, but for the last 40 years a resident of New Orleans, was between 65 and 70 years of age, of an excitable nervous temperament, and had always been a very free liver. On the 19th of July, 1856, suffering, according to his own statement, from a chronic affection of the bladder, he consulted me for the first time. His sufferings as described by him were intense, even beyond description. The intervals between the paroxysms of pain were short, and becoming more and more so every day. Upon being questioned particularly as to his exact symptoms, he informed me that some seven years previous, his urine, when allowed to cool, deposited a red sand or gravel, which had all the appearance of brick dust. That he suffered much at that time from dyspepsia—acidity of the stomach—his urine was scanty, high colored and of an acid reaction. He remarked, also, that the red sediment, when placed in contact with soda, effervesced and the sediment disappeared. To correct this acid tendency of the stomach and urine, he took large doses of bi-carbonate of soda, for a great length of time; in fact he kept it up until he applied to me for relief. Some four years previous to his calling me in, he observed that his urine no longer deposited any of this red sediment, and he began suffering from his bladder. He experienced a dull and heavy pain in the region of the bladder and perineum. The penis became the seat of some uneasiness—micturition was more frequent and accompanied with slight pain. Becoming somewhat alarmed, he applied to one of the first physicians of this city, who, judging simply from

the rational symptoms, told the patient that he was affected with stone in the bladder, and he was advised to consult a surgeon. The Colonel revolted at the idea, and pretended not to submit to the opinion of his physician. He, however, took no more medical advice, but acted secretly on the suggestion already received. He read books and pamphlets upon the subject of stone in the bladder, and made use of all the lithontrypics that have ever been mentioned from Hippocrates down to the present day.

While under this treatment, directed by himself, months, nay years, passed without his having received any material benefit from his course of treatment. His symptoms increased in intensity daily, and his sufferings became intolerable. He bore them, however, with a degree of fortitude and philosophy characteristic of him as a man of courage and firm determination.

His sufferings, when he consulted me, were great. He complained bitterly of a severe pain in the bladder, which was always materially increased by the slightest jolt, or rough exercise. Micturition was frequent, difficult and invariably accompanied by severe pain—occasional stoppages occurred in the flow of the urine before the bladder was emptied; the urine was bloody and contained mucus, often mixed with pus. His sufferings were particularly great at night, as he had to get up every hour to relieve his irritable bladder. From this narration of symptoms, I expressed to him my belief that he had a stone in the bladder, and giving him certain general indications for the management of his case, promised to call again, armed with the necessary instruments to make a proper exploration.

The next day I paid him a second visit, and sounded him. The instrument had no sooner penetrated the bladder, than its collision with the stone produced the characteristic and pathognomonic *click*, which the contact of no other bodies in the bladder can produce. The prostate gland, which was examined through the rectum, was found to be very much enlarged. The finger introduced into the rectum could also detect the existence of the foreign body, which was lodged in the fundus of the bladder. Its weight showed that it was no small stone. It was movable; of this the patient himself was conscious, because he could feel it roll about whenever he changed his position. There was no more doubt in my mind as to the exact nature of the case—he was affected with a lithic diathesis, which had given rise to stone. The patient was made aware of his situation, and told that the only alternative left to him, to get rid of his troublesome affection, was to submit to an operation. With that coolness and self possession

that never left him, he answered that he would as soon die as live the life of torture he did.

His urine, when examined through the microscope, was found to contain crystals of the tripple phosphates, with muco-pus. The existence of tripple phosphates in the urine might seem contradictory to the opinion expressed above, but the bladder had been inflamed for many years; the urine mixed with mucus, was offensive and became readily putrescent; and it is easy to conceive how those crystals were formed; the mucous membrane of the bladder itself secreted the phosphate of lime, which formed incrustations around the nucleus of uric acid already in the bladder.

The subsequent microscopical examination of the stone corroborated the diagnosis of a lithic acid diathesis, for on analysing the stone itself the body was found composed of phosphate of lime, nucleus of uric acid with its centre stained with purpurine.

Directions concerning his general health, regulating his food, drink and exercise, were given him, and the large doses of bi-carbonate of soda, which he had been using for a considerable length of time, were ordered to be stopped. His urine had become quite alkaline. As he was in the habit of using a little stimulant, I allowed him moderate quantities of gin. He followed this general plan of treatment for three weeks, which did much in allaying the local suffering, and in reducing the inflammation of the bladder.

During this lapse of time he was again sounded, in the presence of Drs. E. D. Fenner, D. W. Brickell and C. Beard, and they all detected the presence of the stone. The existence of the calculus in the bladder being thus further confirmed, and the patient determined to undergo an operation to obtain relief, the next question was, should we have recourse to lithotripsy or lithotomy.

The stone being large, and in all probability hard, the irritable state of the bladder, with a tendency to low cystitis, and the enlarged condition of the prostate were sufficient reasons for precluding the selection of lithotripsy.

The only alternative left, was lithotomy. The lateral section was determined upon as the safest and most perfect operation.

On Tuesday, the 5th of August, 1856, the patient having been previously prepared, I proceeded to operate, kindly assisted by Drs. Fenner, Beard, Brickell and Peniston. The patient was placed upon a suitable table, and chloroform administered. When anæsthesia was complete, the patient was ligated, the staff introduced, and the stone having been again felt by

every one present, I began the operation by making an incision three inches long, commencing from the raphé one inch above the anus and terminating at a point midway between the anal aperture and the tuberosity of the ischium. The skin, superficial fascia, subcutaneous fat and transversus perinei muscles were divided. Here some small vessels were cut, and gave rise to some hemorrhage, which did not, however, interfere with the continuance of the operation. These parts having been cut through, I lodged the nail of my index finger in the groove of the staff, which was felt covered by the membranous portion of the urethra. The front of the knife was pushed through the urethra into the groove of the staff, and then withdrawn. In this stage of the operation, the lithotome caché (of which we will speak more fully before concluding), was inserted into the cut portion of the urethra, (the index finger of the left hand serving as a director,) and pushed into the groove of the catheter. Taking hold at that moment of the staff, which thus far had been entrusted to an assistant, I pressed its concavity upwards under the arch of the pubis, whilst I pushed the lithotome farther into the groove of the sound until it had reached the cul de sac at the termination of the staff. The lithotome was extracted from the grooved staff, being then in the bladder; the blade of the instrument was expanded to its requisite degree, and then withdrawn, cutting the deep structures prostate and neck of bladder. The forceps were introduced and the stone seized. Its extraction was rendered difficult by its size and the enlarged state of the prostate gland. The outer covering formed of phosphate of lime, had to be broken before we could extract the calculus. The several pieces were taken out one after the other, the bladder well washed out, a tube inserted into the bladder through the wound, and the patient was removed to his bed. The little hemorrhage which had ensued, together with the influence of chloroform, had left our patient in a state of extreme prostration, which however disappeared under the use of stimulants and frictions over the surface of the body.

Reaction having come on, the patient expressed himself very much relieved, felt comfortable the rest of that evening, and passed a good night. Urine began to flow by the wound in an hour or two after the operation; it was at first sanguinolent, but soon regained its usual color and transparency. Demulcent drinks were used freely, to dilute the urine and diminish its acrid qualities. For diet the first day he was allowed chicken broth. The whole of the second day was passed comfortably; during the night, however, he complained of a little pain at the neck of the bladder, which

was accompanied with spasms of that organ. The tube was then withdrawn, and under a full dose of Battley's sedative, all symptoms of uneasiness disappeared, and the rest of the night was spent very quietly. Thursday morning, his condition was still good, his pulse was about 65 beats in a minute, his tongue was moist and skin very pleasant. Demulcent drinks and chicken broth were still continued. The wound looked healthy, it was well glazed with lymph. Frequent ablutions were made, in order to prevent excoriations of the nates and neighboring parts.

From the time of the operation until Friday evening, the condition of the patient was very satisfactory indeed. Friday noon, it was so very encouraging that he was allowed to partake of a portion of a squab, which he seemed to crave above all things. He relished this dish, and after taking a little port wine and water, went to sleep. Towards night his pulse began to rise, and he complained again of that pain and spasmodic contraction of the bladder. There was no pain whatever on pressure of the abdomen; the urine still flowed freely. The spasmodic contractions of the bladder were frequent and very painful. Opiates were administered freely both by the rectum and mouth, and anodyne poultices placed over the abdomen. He passed a very restless night, and it was only towards morning that, overcome by the influence of the opiates, he slept a little. His pulse during the night rose to 108 in the minute. On Saturday, not finding his condition satisfactory, I determined to call Dr. Picton in consultation.

When Dr. P. saw him he was still under the influence of opium; his pulse 100 a minute. When roused from his drowsy state he was inclined to be flighty. The bowels not having been moved since the day of the operation, the abdomen was somewhat tympanitic. It gave rise to no pain when pressed. We agreed to administer a purgative enema in order to relieve the tympanites. The injection had the desired effect; it brought about a copious evacuation, which was accompanied by a great discharge of gas. The patient felt somewhat relieved; his abdomen was relaxed, and free from all pain, his bladder was quiet, the urine flowed freely, the wound looked well, and healthy granulations were beginning to show themselves. A gum-elastic tube was then introduced into the urethra through which the urine flowed. Towards night his pulse became more quiet; he was inclined to sleep sweetly, and he consequently passed the whole night comfortably. Sunday morning there arose suddenly a violent storm; a south-east wind blew furiously, the atmosphere grew cold and damp, and it rained in torrents. The rattlings of the windows and whistling of the wind created a

noise and disturbance which did much towards irritating our patient and making him more nervous. He talked incessantly and became excessively irritable, with a rapid pulse. By the use of sedatives we could manage to quiet him for a time. His rest was easily disturbed and at times he would talk in his sleep. An infusion of peach leaves together with a few drops of the tincture of henbane was better in quieting this nervous excitability than any thing we used. On Sunday night his restlessness began again; then he became violent and refused peremptorily to take any more medicine. It was even futile to resort to reason or persuasion to convince him of the necessity of taking medicine; he would not listen to arguments. The consequence was that he was restless, nervous and irritable all night; towards morning he consented to take what was given him, and he was soon quieted by a few doses of the tincture of hyoscyamus. This restlessness and nervous excitability had very much exhausted our patient's strength. His digestive organs were however in a good state, and he had been taking and seemed to relish all along the beef-tea and chicken broth which were given him daily. On Monday morning we had succeeded in quieting him and he remained composed the rest of that day, the whole of the next night, which he passed very comfortably, so much so that on Tuesday morning we thought all our troubles were over—but our hopes were not destined to be of long duration. Tuesday at noon this same nervous irritability came on, and it gradually went into a delirium, which increased until it had brought about a train of symptoms resembling more those of delirium tremens than any thing else we could compare it to.

Our prognosis from that moment became unfavorable, and it was not many hours before it was verified. On the following morning, Wednesday, he breathed his last.

There can be no doubt that the immediate cause of this patient's death was a disturbed state of the nervous system. It is reasonable to suppose that the state of constant misery and excitement in which he had lived and which had rendered his temper unusually irritable and capricious, made him more liable to be thus affected than he would have been otherwise.

This case would go to prove the correctness of a rule already established that old persons and particularly those laboring under diseases of the nervous system are among the most unfavorable subjects for all kinds of operations.

We will now speak of and describe the instrument which was used in the operation to cut the prostate and neck of the bladder.

The lithotome of Frère Côme, which is undoubtedly one of the most ingenious instruments in surgery, is rarely used in this country. Most of the French surgeons make use of it in all their operations. No instrument ever performed its duty better, or earned more fame for its master.

Since the days of Scarpa, to whom is due the merit of having first directed the attention of the profession to the importance of making, in all cases of this operation, a small section of the prostate gland, it has been perfectly well established that a small incision of the prostate is one of the requisites of a well performed operation. It stands to reason then that the instrument that does this with the most precision, and most effectually, is the one that ought to be selected. I had an opportunity of performing the lateral operation for stone on the dead subject, and I operated with the bistouri, gorget and lithotome, and becoming satisfied of the superiority of the last mentioned, I experimented farther with it. I cut some twenty-five subjects with this instrument, and in not a single case did I wound either rectum, pudic artery, or any of its larger branches. The prostate gland was in no instance entirely cut through, neither was there any injury done to the vesical reflection of the pelvic fascia. We venture to say that the part of the operation which consists in dividing the prostate and neck of the bladder, can be performed more easily, and with far more precision with the lithotome caché than with any other instrument that has ever been invented. To be convinced of the truth of this assertion it is only necessary to consider that the blade of the lithotome, when it is expanded, forms with its sheath a triangle, the base of which is in the bladder, and when withdrawn from that viscus must necessarily cut with great precision, and from within outwards every thing that presents itself to its edge. The other instruments, the knife and gorget, on the contrary form, with the staff already in the bladder, a triangle, the summit of which corresponds to the bladder, and as they cut from without inwards necessarily push, to a certain extent, the tissues before them. Not being able to graduate the degree of force necessary to cut through the deep tissues, it often happens that the prostate is not sufficiently divided to admit of the extraction of the calculus, thereby necessitating efforts which are sometimes productive of a great deal of mischief; or it may again happen that the prostate is entirely divided, and the vesical reflection of the pelvic fascia wounded, giving rise to the most formidable of all complications, urinary infiltration. Many objections we know have been urged against this most valuable instrument, among

which may be mentioned its liability to injure the fundus of the bladder, or the rectum, to wound the pudic artery or its branches; but with a little reflection it is easily perceived that these objections fall less on the instrument than on the want of dexterity on the part of the operator. When conducted by a skillful surgeon, this instrument is, of all others employed in lithotomy, certainly the most perfect.

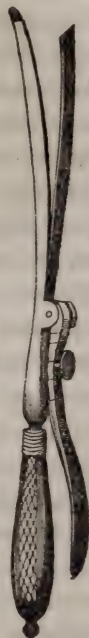
The annexed sketch represents the lithotome caché of Frère Côme as modified and as used at the present day. It has a single blade moved by a spring, and when closed is concealed in a sheath or kind of rod fixed on a stout handle. The extremity of this sheath is surmounted by a beak to enable it to slide the more easily and securely in the groove of the staff. The extent to which the blade may be opened is regulated by means of a screw attached to the spring.

The most convenient way of using this instrument is the following: The lithotome is seized by its handle with the right hand, and placing the thumb above, the three last fingers below, and the index finger stretched along the sheath or rod, the instrument is passed along the under finger of the left hand (which should be in the wound pressing against the groove of the catheter) until it reaches the groove of the staff; the contact of the instruments produces a certain metallic friction which is indicative of the instrument being well placed.

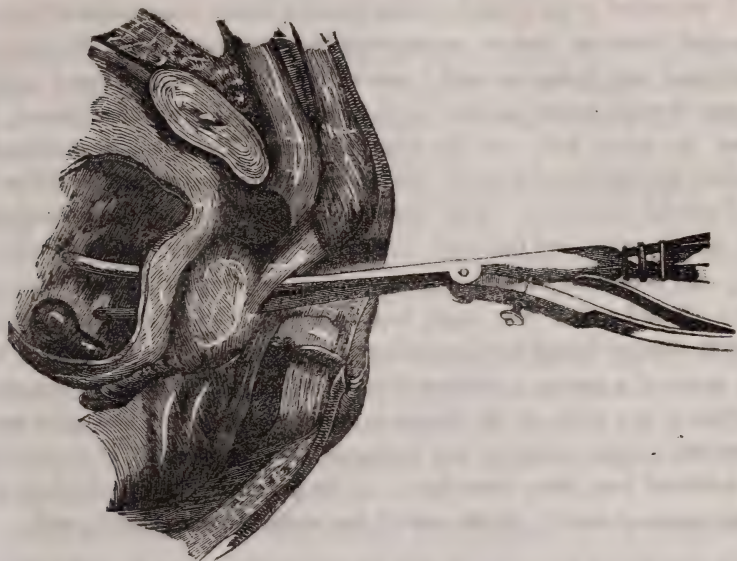
The surgeon now takes hold of the staff, which thus far had been entrusted to an assistant, with the left hand, and pressing its concavity upwards against the arch of the pubis pushes the lithotome in an upward direction, in order to keep it in the groove of the staff. This simultaneous movement of the two instruments is of great importance, for it allows the lithotome to pass into the bladder with ease.

The two instruments being placed in that position, the surgeon makes sure that his lithotome is in the groove of the staff; he then draws the handle of the catheter towards him, while he pushes the lithotome in the groove until it has reached the cul de sac which is the termination of the staff. The lithotome being disengaged the catheter is withdrawn.

The facility with which the lithotome moves about, and its contact with the calculus, are sure indications that the instrument is in the bladder.



There now remains to divide the prostate and neck of the bladder. This is easily done as represented in the wood cut, by pressing the lithotome



under the arch of the pubis ; the blade is then expanded to the requisite degree and the division of the deep structures is effected in withdrawing the instrument, its edge being directed downwards, and in the direction of the external incision, and long axis of the prostate. The great art in introducing and withdrawing the lithotome caché consists in keeping it in a perfectly horizontal position, and in directing the edge of the instrument in the course of the external incision. If the handle of the instrument were elevated, the extremity of the blade might wound the fundus of the bladder ; if on the contrary it were depressed, the extent of the incision in the prostate would not be proportionate to the aperture of the blade ; if the edge of the instrument were directed outwardly the internal pudic or its branches would be wounded, and finally, if it were turned downwards it would inevitably wound the rectum.

A CASE OF PROLAPSUS, WITH ULCERATION OF THE OS UTERI.

By JAMES N. WILLIAMS, M. D., Rocky Mount, La.

Messrs. Editors—Believing it to be the duty of every medical man to contribute his mite to the general store of practical facts, I offer you the history

of a case of prolapsus uteri and ulceration of the os tinæ, recently under my treatment.

I was called to see a negro woman laboring under menorrhagia of three months' duration, and on examination per vaginam, I found the uterus prolapsed, and it was not until I resorted to free venesection that I could reduce it to its proper position in the pelvis. Having no other pessary, I used the sponge ball, and thus kept it in situ. The discharge continued during two days subsequent to the operation, accompanied with difficult and painful micturition. This latter was relieved by the administration of *spt. nit. dulc.* and *tinct. opii*. After the lapse of seven days an offensive odor proceeded from the vagina, and on examination I found the os uteri clothed with a very angry looking ulcer. This I cauterized with nitrate of silver during three successive days, at the same time applying to it, by means of a sponge, a solution of sugar and chloride of soda, in the proportion of two parts of the former to one of the latter. I also gave her, from the commencement of my treatment, one teaspoonful of a solution of iodide of iron, three times daily, in the proportion of two drachms to four ounces of water. At the end of five weeks she was perfectly well.

A WOMAN WITH FOUR MAMMÆ.

Messrs. Editors.—With your kind permission I will record in your valuable journal a very singular, and, so far as I am aware, anomalous case.

A negress, æt. 19 years, property of Mr. W. C. S., of this city, has four perfect mammæ. Two of them are of the usual average size and in normal position; the other two are situated respectively on the fold of the pectoralis major muscle, their posterior halves extending partially into the axillæ. The left is the larger and has a perfect nipple; the right is not so perfectly developed. A few months ago the woman had her first infant. All four mammæ secreted milk, though but little flowed from the right extra one. The left extra one secreted milk so freely as to be at one time threatened with abscess. The child died a week or ten days after birth, and consequently the secretion of milk ceased in all of them.

Your obd't sv't.,

W. E. BRICKELL, M. D.

Vicksburg, Miss., Sept. 23, 1856.

SPECIAL SELECTIONS.

BLOOD, CIRCULATION, ETC.—*By Hermann Weber, M. D., Licentiate of the Royal College of Physicians, Physician to the German Hospital.*

1. Hirt: On the Numeric Proportion of the Red to the White Blood-Cells. (Müll. Arch., pp. 174 ss. 1856.)

2. Brunner: On the Average Tension in the Vascular System. (Zürich, 1854.)

3. Brunner: On the Tension of the Blood in the State of Rest in the Living Animal. (Henle und Pfeufer's Zeits. für rat. Med. 1855, and Schmidt's Jahrb., vol. lxxxvii. p. 287.)

4. Becker: On the Tension of the Carbonic Acid in the Blood, as a Measure for the Metamorphosis of the Carbonaceous Constituents of the Body and Food. (Henle und Pfeufer's Zeits. für rat. Med., vi. 3. 1855.)

5. Seux and Roger: On the Pulse in New-born Children. (L'Union Médicale, vol. ix. No. 130, 1855.)

6. Marié: On the Relation between the Frequency of the Respiratory Movements and the Contractions of the Heart. (Arch. Génér., Juill. 1855; and Schmidt's Jahrb., vol. lxxxviii. p. 166, 1855.)

7. Vierordt and G. Ludwig: Contribution to the Knowledge of the Respiratory Movements. (Vierordt's Arch. für Phys. Heilk., xiv. 2, 1855.)

8. Moleschott and Schelske: Comparative Researches on the Quantity of Carbonic Acid excreted, and the size of the Liver in nearly-allied Animals. (Moleschott's Untersuch. z. Naturlehre d. Menschen u. d. Thierre, pp. 1 ss. 1856.)

9. Moleschott: On the Influence of Light on the Excretion of Carbonic Acid by Animals. (Wien. Med. Wochensch., No. 43, 1855.)

10. Valentin: On the Interchange between Muscles and surrounding Atmosphere. (Vierordt's Arch. für Phys. Heilk., xiv. 4, pp. 431 ss. 1855.)

11. Van der Becke Callenfels: On the Influence of the Vaso-motor Nerves on the Circulation and Temperature. (Henle und Pfeufer's Zeits. für rat. Med., vii. pp. 157 ss. 1856.)

12. Kussmaul and Tenner: On the Influence of the Circulation in the Large Vessels of the Neck on the Temperature of the Ear, and its Relation to the Alteration of Temperature by Paralysis and Irritation of the Sympathetic Nerve. (Moleschott's Untersuch. z. Naturlehre d. Menschen u. d. Thierre, i. pp. 90 ss. 1856.)

Dr. Hirt, who made his observations principally on his own blood, found the number of the white globules always considerably increased from half an hour to one hour after each meal; the influence of the latter in general disappeared two hours later (*i. e.* two and a half to three hours after the end of the meal). Thus, at 8 A. M., when breakfast was taken, the proportion of the white to the red globules was $= 1 : 1,760$; from half-past 8 to 9, $= 1 : 700$; between 9 and half-past 10, it sank to $1 : 1,510$; at 1 P. M. (dinner) $= 1 : 1,510$; from half-past 1 to 2 P. M., $= 1 : 420$; at half-past 3 P. M. $= 1 : 1,480$; at 8 P. M. (supper) $= 1 : 1,480$; at half-past 8 P. M. $= 1 : 550$; between half-past 10 and half-past 11 $= 1 : 1,230$; from then to 6 A. M. it sank gradually to $1 : 1,760$. Hirt agrees with Funke and Vierordt, that the blood of the vena lienalis is much richer in white cells than that of the artery; but according to him the proportion is only $= 1 : 60$, while Funke asserts that the white cells sometimes form the fourth part of the whole number; and Vierordt described it in the vein of a decapitated criminal (one hour and a half after death) as large as $1 : 4.9$. The author corroborates Lehmann's statement, that the blood of the hepatic vein contains a larger amount of colorless corpuseles ($1 : 136$) than that of the vena portæ ($1 : 514$). Some experiments with tonic remedies lead him to the inference that these possess the power of increasing the number of white globules in a very remarkable manner; the tincture of myrrh being in this respect superior to that of bark, and still more to that of the malate of iron.

Brunner measured the tension of the blood in the vessels by means of C. Ludwig's "Kymographion." He endeavored to arrest the motion of the thorax, the limbs, and the heart, by placing the animals under the influence of opium or chloroform, and of electrifying at the same time the peripheric ends of the dissected vagi. We must refer for the details to the original communications; stating here only, that from the author's experiments it becomes evident, that the blood is under a considerable degree of pressure, also when in a state of rest. The cause of this is attributed to the circumstance that the capacity of the blood-vessels, when their walls are not stretched, is smaller than the bulk of the blood contained in them; that the vessels must therefore be distended in order that the blood may find room within them. The degree of tension varies much in the same animal: (*a*) it becomes increased by the quantity of blood being increased, (*b*) diminished in the opposite case; thus, the tension in a small dog was found to be at first equal to 10.4 millimètres of mercury, it rose to 19.0

mm. after the injection of 280 grammes of blood, and fell later to 8.5 mm when 356 grammes of blood had been detracted. As the quantity of the blood is frequently changing, according to the state of health, the meals, and other influences, it is without doubt that the degree of tension is not always the same. The quantity of blood remaining the same, its tension varies with the expansibility of the vessels, the amount of contraction or relaxation of the surrounding muscles, the position of the limbs, etc. In Brunner's experiments, the tension varied during the continuance of the irritation of the vagus between 4 mm. and 29 mm.; but however long he applied the irritation, he never succeeded in reducing the state of tension to so low a grade as it assumed at the moment of death. The power of resistance in the walls of the vessels must therefore undergo a change while life ceases. The influence of the irritation of the vagus shows itself almost immediately in the arteries, but only after the lapse of some seconds in the veins.

Becker's method appears to be more simple than any one of those hitherto employed. The air is expired into a glass bell placed over mercury; the carbonic acid is determined by Bunsen's method (eudiometer and balls of potassium). The inspirations and expirations were of course made, in Becker's observations, according to a certain rule, sixty seconds being the time during which the breath was retained after a profound inspiration, whenever no intentional deviation is mentioned. The principal results are:

1. That the tension of the carbonic acid in the blood varies; that it increases and decreases with the quantity of carbonic acid contained in the blood, which is proportionate to the quantity of carbonic acid expired in a given time.
2. That the carbonic acid is expired in varying quantity, according to the length of time during which the breath is retained. We will quote the results of Vierordt's, as well as Becker's, experiments on this subject:—

		BECKER.		VIERORDT.	
Time of retention		0 seconds—	3.636 per cent. CO ₂	—	per cent. CO ₂
"	"	20	" —5.552	"	—4.80 "
"	"	40	" —6.265	"	—5.21 "
"	"	60	" —7.176	"	—6.06 "
"	"	80	" —7.282	"	—6.44 "
"	"	90	" —	"	—6.50 "
"	"	100	" —7.497	"	—8.06 "

3. While the *temperature*, and the *frequency of pulse* and *respiration*, reach their maximum immediately, or at least within the first hour, after

the principal meal, the tension of the *carbonic acid* becomes greatest after two or three hours, and *urea* is excreted in the largest proportion from the second to the fifth hour following the meal. 4. Concerning the *period of the day*, we find the tension considerable (6.904 p. c.) at 6 A. M.—i. e., immediately after waking; then, no food being taken, it decreases until 10 A. M. (6.287 p. c.); after this it rises, to reach its maximum at about 2 P. M. If a meal is taken at noon, the tension begins immediately afterwards to rise more considerably, reaching its highest degree within two hours and a half (7.593 p. c.) When no food was taken, Becker found this increase less marked (only to 6.89 p. c.); but in opposition to Vierrordt, he asserts that it is never altogether absent, and that it coincides with the increase of temperature and frequency of pulse, which are likewise observed at that time, independently of the ingestion of food. After about 3 P. M. the tension begins again to diminish. 5. Increased consumption of water has scarcely any influence on the tension of the carbonic acid, while the excretion of urea becomes remarkably augmented. Thus Becker shows that “as the elimination of carbonic acid is considerably influenced by the quantity of air inspired, that of urea is to some degree dependent on the ingestion of water.”

Seux gives the results of his own and Dr. Magail's observations on the pulse of infants, from the period commencing directly after birth, and ending at the age of two months. These observations, which are made at the Charité Hospital at Marseilles, and for the greatest part corroborated by Dr. H. Roger, at the Hospital for Children in Paris, lead to the following inferences: 1. The pulse of infants, when in the state of health and quietude, may vary from 80 to 164. 2. In the greater number, it ranges between 120 and 140; then follow the cases between 140 and 160; afterwards, those from 100 to 120; later, those above 160; lastly, those below 100. 3. It is in general regular; sometimes, however, several pulsations follow each other more quickly, and are succeeded by others which are separated by a longer interval. These irregularities were found in cases that were below the average frequency. 4. The sex, constitution, salubrity of residence, or time of the year, appear to exercise no influence. 5. The pulse is more frequent during the first few hours after birth, but from the end of the first day to that of the second month, no difference is to be attributed to the age. 6. The periods of the day are without influence. 7. The act of sucking in general quickens the pulse, which influence remains perceptible during about half an hour. 8. Sleep and waking, quie

tude and agitation, have a marked influence. During sleep, the frequency is diminished, it rises when the child awakes but remains calm, and still more when it becomes agitated. Thus it rose in one instance at first from 104 to 120, and afterwards, when the child began to cry, to 134. A sudden effort or emotion may cause an increase of 20 or 25 beats in a minute.

It will be seen that these observations confirm those of Knox, Guy, Valleix, and others, in most points, but that they differ in their statement on the influence of the period of the day and of the sex.

Marié gives 20 as the average number of the *respiratory movements*, 71 as that for the *pulse*; the proportion of the former to the latter, 1 to 3·51. For women, he found the figures 77 and 23; for men, 69 and 19. The proportion between the two increases and decreases with the frequency of the pulse, in support of which inference, the following table is compiled from the examination of patients of different nature:—

Average number of respirations.	Average frequency of pulse.	Proportion	Number of cases.
16	43	1 : 2·69	12
19·73	53·6	1 : 2·71	15
24·7	70 E	1 : 2·83	93
24·7	82	1 : 3·32	39
35	104	1 : 2·97	54
42·43	142·28	1 : 3·35	21
50	172	1 : 3·4	4

Hourmann and Déchambre arrived at very similar results in their observations on aged persons. Exceptions to this rule are in general found in strong mental emotion, when the respiration mostly remains calm, while the frequency of the pulse becomes considerably increased; further, after meals, which cause about eight pulsations more in the minute, although the number of respirations is rarely influenced. Several pathological conditions, and the effect of digitalis, may likewise be named among the exceptions.

Vierordt and G. Ludwig performed their experiments on five male subjects, aged 36, 20, 51, 34, and 7 years. Concerning their method, we must refer to the original essay; we only mention here that the respiratory movements were measured on a point of the *linea alba*, a little below the umbilicus, and represented by means of a lever-like instrument on the Kymographion drum.

The principal inferences are—1. The duration of the *single* respirations in the same experiment (three to six minutes) varies considerably; the average duration drawn from the lowest figures in the five individuals to

that from the highest, bears the proportion of 100 to 209, although the experiments are made in the state of quietude. 2. Each respiratory movement is divided into four periods,—*a*, inspiratory period; *b*, inspiratory pause; *c*, expiratory period; *d*, expiratory pause. The duration of the inspiratory period varies in the average from 100 to 232, that of the expiratory period from 100 to 226. For the relation of these four periods among themselves, the authors use the term *celerity* of respiration; *quick* they call a respiration with a short inspiratory period; *slow* the opposite. The inspiratory period signified by 10; the expiratory period occupied in the quickest respiration, 38; in the slowest, 12. The respiration is very quick during reading aloud. The inspiratory pause is very short—frequently altogether wanting; the expiratory pause bears on the average to the whole respiratory movement the proportion of 10:44. 3. Another series of experiments exhibit the relation between the respiratory movements and the state of repletion of the lungs with air. The authors arrived at the following results:—*a*. The more calm the respiration, the less replete are the lungs with air, and *vice versa*. 100 being the figure for the vital capacity, 19.3 corresponded in an average of nine experiments to the lowest point at the commencement of the inspiration, while during excited respiration, 56.9 was the lowest reading. *b*. The repletion of the lungs during the state of calmness is such, that the quantity of air changed by each respiratory act is about one-third greater than that which remains in the lungs, and might be expelled by forced expiration. *c*. The average repletion of the lungs was 33.5 per cent. of the vital capacity. Experiments with the spirometer led to the same result. *d*. The repletion of the lungs at the commencement of each inspiration varies much in the same experiment. *e*. When the state of repletion is lower, the inspirations are more profound than when it is higher.

Moleschott and Schelske employed in their experiments the *Rana esculenta*, and several nearly allied genera and species of animals. The following inferences are of physiological interest:—1. The batrachians yield, in proportion to their weight, less carbonic acid than man, but when they breathe in air charged with moisture, the difference is not so great as is generally assumed. If we adopt, with Donders, 1,593 milligrammes of carbonic acid within 24 hours, for 100 grammes of man, as the unity, *Rana esculenta* yields 0.37; *Hyla arborea*, 0.39; *Triton cristatus*, 0.63; *Rana temporaria*, 0.69; *Bufo cinereus*, 0.15; *Bufo calamita*, 0.37. 2. Several species of the same genus exhibit a wide difference in the propor-

tionate quantity of carbonic acid excreted and in the size of their livers (weight of liver for 100 grammes weight of body in *Rana esculenta*, 6.0 grammes; in *Rana temporaria*, 3.37 grammes). It is therefore unsafe to transfer the laws of metamorphosis of matter found for one species to another, although nearly allied. 3. Among the nearly allied animals, the most inert (*Bufo cinereus*, *Salamandra maculata*) yield the smallest, the most active (*Rana*, *Bufo* *Calamita*, *Hyla*, *Triton*) the largest amount of carbonic acid. 4. The comparison between *Hyla arborea* and *Hyla esculenta* shows that between nearly-allied animals, living more in the air and less in the water, yields the larger proportion of carbonic acid. 5. The experiments made on the two sexes separately corroborate (with the exception of *Triton*) the law found already by Andral and Gavarret, that the male sex produces, for the same weight, more carbonic acid than the female; the proportion in *Bufo cinereus* = 1.43 : 1, in *Rana esculenta* and *temporaria* = 1.28 : 1.6. 6. The liver can in no way be considered as a measure for the excretion of carbonic acid in different species of animals.

In another series of experiments on the influence of light—made likewise on frogs—Moleschott arrived at the following results:—1. Frogs excrete, the temperature being the same, or nearly the same, for an equal weight of body, considerably more (from one-twelfth to one-fourth of the whole amount) carbonic acid when under the influence of light, than when kept in the dark. 2. The more intense the light, the greater the amount of carbonic acid excreted. 3. The light appears to exercise its influence partly through its eyes, partly through the skin.

Valentin's researches, made on the muscles and other parts of the *Rana esculenta*, manifest that there is a constant interchange between the muscles and surrounding atmosphere, and that the muscles endowed with irritability and those deprived of it, exhibit a great difference in this respect. The difference becomes evident as soon as the muscle is dead, whether this death is caused suddenly, as by cold, heat, mechanical injury, etc., or gradually, as in the amputated limb. Again, a difference is perceptible in the action of the dead muscle on the surrounding atmosphere, according to the manner in which the death has been effected (cold, heat, mechanical power, etc). The difference between the action of the living and that of the dead muscle increases with the advancing decomposition of the latter. The living muscle produces a considerable diminution of the surrounding atmosphere; this diminution becomes less evident as soon as the irritability ceases; by degrees it becomes equal to zero, and during putrefaction an in-

crease of volume is observed. These changes are caused principally by the absorption of oxygen, the development of carbonic acid and nitrogen. Concerning the *oxygen*, Valentin remarks, that as well the living as the dead muscle absorb more than is proportionate to the carbonic acid given off by them. Not only the muscles, but also the other tissues, exercise an influence on the surrounding atmosphere, by absorbing oxygen and yielding carbonic acid. The quantity of the *nitrogen* undergoes only slight alteration, or none at all, while the irritability of the muscle persists, but development of nitrogen takes place as soon as the decomposition commences.

Callenfels considers—*a.* The nature of the periodic contractions and dilations of the arteries of the ear of rabbits, lately described by Schiff. He admits the existence of this phenomenon, but could not observe the regularity and frequency, as represented by Schiff. While the latter has seen from two to six periodic changes in a minute, Callenfels found each change occupy a whole minute or more. During cold weather, the state of contraction continued sometimes even for hours; while in warm weather, the dilatation predominated. A close relation existed always between the lumen of the vessels and the temperature of the ears, the latter being low during the contraction, high during the dilatation, of the vessels. He is inclined to ascribe, from his observations, to the ears of the rabbit the function of husbanding the temperature of the animal, by giving off much warmth when the vessels are dilated, and little when they are contracted.

b. The experiments on the *sympathetic nerve* on the neck lead Callenfels, on the whole, to similar results as those obtained by Bernard and others;* he found, however, in opposition to Bernard, that mere section of the nerve exercises a greater influence on the temperature than extirpation of the ganglion supremum. And again, in contradiction to the same author, he states that "the connexion between the dilatation of vessels and the temperature is so close, that we can almost ascertain the temperature of the ear by mere inspection."

c. Concerning the vessels of the pia mater, Callenfels obtained, after many negative results, the decided proof, that the arteries of the pia mater are under the influence of the sympathetic nerve on the neck. Irritation of the nerve produced distinct contraction of the small arteries on the same side; discontinuance of the irritation was followed immediately by dilatation of the same vessels.

* British and Foreign Medico Chirurgical Review, No. 33, p. 175. 1856.

Kussmaul and Tenner draw, from their ingenious experiments on rabbits, the inference, that the *sympathetic* nerve has no direct influence on the formation of animal heat, as Bernard had concluded; but that it acts merely through the coats of the blood vessels, by allowing a larger or smaller quantity of blood to enter into them. Our authors adopt, therefore, the mechanical view propounded by Donders, Schiff, Callenfels, and others. They do so, on the following results of their experiments:—1. By direct increase of the supply of blood, the same increase of temperature of the ears may be effected, and even a greater one, than by paralysis of the sympathetic nerve. 2. By direct arrest of the supply of blood, the same degree of lowering of temperature may be obtained as by irritation of the sympathetic nerve. 3. The difference in the temperature of both ears, effected through the arrest of the supply of blood on one side, are as great as those produced by paralysis or irritation of the sympathetic nerve on one side. 4. The arrest of the supply of blood on *one* side causes increased redness and warmth in the ear can be still increased by increasing the lateral pressure in the vessels. 6. In the ear deprived of blood, the decrease of temperature continues in spite of section of the sympathetic nerve. 7. The temperature in the ear sinks more rapidly in consequence of arrest of the supply of blood, if the sympathetic nerve has been previously cut.—*British and Foreign Medico-Chirurgical Review*.

FURTHER NOTES ON APNŒA AND ASPHYXIA.—*By Marshall Hall, M. D., F. R. S., etc.*—Before we can be perfectly prepared to investigate the nature of apnœa, its effects, and its remedies, we must study the special function which is interrupted.

Respiration involves *four* important processes:

First. Oxygen is *absorbed* by the blood circulating in the pulmonary blood-channels,—only absorbed,—from the *inspired* atmospheric air.

Secondly. By this oxygen the carbonic acid displaced and evolved from the blood, and removed from the system with the *expired* air.

Thirdly. Aqueous vapour in large quantity is evolved from the pulmonary blood, and exhaled with the same expired air.

Fourthly. The expired air has a higher temperature than the inspired air: caloric is therefore given off by the pulmonary blood, the temperature of which is *pro tanto* diminished;—respiration is therefore a *cooling process*.

The trachea is not only the way of ingress into the lungs, but the way of egress from the lungs; it is not only the ventilator by which the atmos-

pheric air, and especially its oxygen, are admitted, but the chimney by which the air expired is, with its accession of carbonic acid, conveyed from the lungs,—that carbonic acid which would, if retained, be a real “choke-damp,” as it is the blood-poison, and the real cause of death in apnœa.

The important function of respiration consists in this inhalation of oxygen and exhalation of carbonic acid. This function is unattended by any important change of temperature. Animal heat is evolved *not* in the lungs, *but* in the general system at large, where the change of oxygen into carbonic acid, the slow *combustion* of carbon, takes place, during the processes of deposition and absorption, in which nutrition consists.

That nutrition, and with it the evolution of heat, are events which occur in the systemic circulation, are facts principally established in modern times; but not entirely; they were not unknown in the time of Harvey. I find the following remarkable passage in a “Discourse” appended to his English edition of Harvey’s “Anatomical Exercises concerning the Heart and Blood,” by Dr. James de Back, which appeared in the year 1653. p. 107;

“I do believe, that wherever nutrition is performed, there this function is most manifestly executed, and that the parts, whilst they are nourished, are heated; there the composition of the blood is dissolved, and is divided very small; there also the fire particles, freed from their fetters, and being united, do show their force by heating.”

That the function of respiration is in reality a cooling process was the doctrine of Galen (*De Utilitate Respirationis*, ed Ven. 1597, p. 223). It was also the doctrine of Haller; and it is obviously true. We may inhale the atmospheric air at various temperatures, some of which are far below that of freezing water; we exhale it at the temperature of 92° or 94° Fahr.—a temperature comparatively higher, even in summer, and still more considerably so in winter. This elevation of temperature is effected by a proportionate loss of temperature sustained by the blood circulating in the pulmonary blood-channels. *Respiration* is therefore a cooling process.

I propose, on the first opportunity, to introduce two thermometers, one along the jugular vein into the right auricle of the heart, in a breathing animal, the other along the carotid artery into the left—under the influence of chloroform. The circulation of the blood is extremely rapid; still I think that a delicate thermometer, constructed for this purpose expressly will detect a difference, and that the temperature of the left side of the heart will not be higher, but lower, than that of the right.

We may thus recapitulate the matter : the oxygen inspired in the lungs is absorbed, and thence conveyed by the arterial blood into the general system, and that it *there supports* the combustion of the tissues, by which combustion the animal heat is evolved ; the carbonic acid, the choke-damp, the blood-poison, formed by this combustion, is re-conveyed by the venous blood to the lungs, and thence exhaled into the atmosphere.

If the mere absorption of oxygen be attended by the evolution of a slight degree of heat, this is probably counterbalanced by the simultaneous escape of carbonic acid, the one losing, the other assuming the form of gas ; so that the resultant temperature may be unchanged.

But the evolution of aqueous vapour must also be a cooling process in proportion to the quantity of water passing from the fluid state to that of vapour.

The cooling effect of the inhalation of a cooler and exhalation of a warmer portion constitutes then an obvious cooling process.

And here I may revert to that marvellous law of the animal economy, according to which the number and extent of the respirations and the rapidity of the circulation constantly maintain a due *ratio* to each other. During repose, and especially during sleep, these are both at a *minimum* ; during activity and effort of every kind they are augmented. In both cases the physiological ratio or proportion between them is sustained.

A singular exception to this rule is observed in the dog, which pants and projects his tongue, as the effect of heat merely, I believe, without proportionally augmented circulation ; the augmented respiration is merely a cooling process.

If the ratio between the circulation and the respiration were broken, one of two events must occur : if the circulation be unduly and disproportionately augmented, or the respiration be unduly suppressed, the quantity of carbonic acid being unexhaled and therefore retained, the blood becomes poisoned and the patient destroyed ; if the respiration were unduly augmented, the temperature of the animal would be lowered and the patient might die of *refrigeration*. The former fact obtains in every case of apnœa ; it constitutes the death by drowning, strangulation, " choke-damp." The latter fact was actually produced in the splendid experiments of Legallios, in which he used artificial respiration. Undue artificial respiration cools and destroys ; the *balance* of temperature is lost.

In treating the cases of apnœa and approaching asphyxia, these princi-

ples must be our guide : if we induce too full and too frequent respiration even, the patient will lose his temperature and be destroyed.

I have already said and proved that a disproportionate circulation is fatal, that the tendency of the warm bath without respiration is deleterious.

If our attempts at artificial respiration be made inconsiderately,—if the induced respiration be too rapid or too great, compared with the remaining degree of the circulation,—we destroy our patient.

The warm bath, or any other measures by which the circulation may be sustained, *respiration being deficient*, is, I repeat, actually destructive. It cannot be repeated too often, that an animal dies of apnoea the more promptly, the warmer the temperature, the more active the circulation in a word, from whatever cause.

Our object in treating the drowned patient must be twofold : to restore the respiration, but to restore it in a degree proportionate to the degree of the circulation ; and to promote the circulation, in its turn, by any means in our power, again augmenting the respiratory movements as we may succeed in this second object.

These are precisely the two objects which I mentioned in my former communication. It is since that publication that I have ascertained the importance of sustaining a just and due *proportion* between the two functions, the circulation and the respiration, which it must be our constant aim to promote simultaneously and proportionately, either of these, without the other, being actually fatal. Physiology must be our guide. Empiricism has proved fruitless—nay, worse than fruitless ; it has not even taught us, that to raise the temperature, without inducing effectual and proportionate respiration, is, as I have stated, destructive.

With the postural respiration formerly described must be combined the system of energetic frictions of the limbs upwards, with firm pressure, by means of which not only is the venous circulation *best* promoted, but the warmth itself is *best* restored.

MICROSCOPIC APPEARANCES OF EVACUATIONS IN YELLOW FEVER, OBSERVED BY DR. BLAIR.—The following letters from Dr. Blair to Dr. John Davy contain observations of so much importance, bearing upon the pathology of yellow fever, that we have much pleasure in making room for them. We may add, relative to the morbid specimens referred to in Dr. Blair's first letter, that Dr. Davy finds their appearance under the micros-

cope to correspond with the description, and that the latter gentleman entertains no doubt of their being portions of vessels.

George Town, Demarara, March 8th, 1856.

My Dear Sir—I beg leave to enclose for your examination a small fragment of material which was expectorated by a seaman, Thomas Bailly, suffering from yellow fever in the Seaman's Hospital, on the 29th ult. The expectoration at the time of observation was of considerable quantity, amounting probably to an ounce. Some of it had a clear glairy appearance, and some was of rather an opaque white, and of a tenacious consistence. Mixed with this expectoration were several red spots, apparently minute blood-clots. On microscopic examination, the pale portion was found to consist chiefly of epithelium, but no cilia were observed on the cells, which were in general very perfect. Several fragments of broken capillary vessels were found mixed with it. When the red spots were subjected to examination, they were found to consist of bundles of capillary fragments, tinted of a bright pink or crimson, and without blood-corpuscles being present. Under the one-fourth and one-eighth inch object-glass of Ross, several of these capillaries were found to be colorless. I enclose a small portion of this material in tinfoil; and lest decomposition should injure the specimen before it arrives at its destination, I have mounted a minute portion in Canada balsam, which is also sent. Although it is only a week put up in the balsam, I find it has lost much of its brightness of color already. The fimbriated ends are also injured. It would likely have done better in a glass cell, preserved in Goadby's solution, but I feared that the thin glass of the cell would have been fractured in passing through the post office. I hope, however, that between the two samples sent, sufficient may reach you to form a correct idea of its structure. On the 4th of last month, in the case of a seaman named Morrison (fatal), I for the first time observed the undoubted presence of broken capillary vessels in the excretions of yellow fever. In his case, also, it was first noticed in the expectoration. On all former occasions, epistaxis or bloody expectoration was looked on carelessly, as merely a manifestation of the hemorrhage tendency, and nothing was expected to be seen but blood-corpuscles under the microscope. These symptoms were therefore almost unheeded hitherto. On this occasion, however, some turn of thought suggested more particular attention to the subject, and the examination of Morrison's bloody sputa led to important results. I have since found the existence of broken capillary vessels one of the commonest phenomena of the disease. They are to be

found sometimes in great abundance in the urine, in the alvine evacuations, in the white vomit, in the flaky sediment of the black vomit, in the bloody exudations and hemorrhages from the mouth, and even on the blistered surfaces. In the flakes of black vomit, it is sometimes necessary to dissolve off the albuminous matter by a drop or two of liquor potasse before they come fully into view. I had often seen them formerly in the urine and black vomit, and other fluids eliminated from the subjects of yellow fever; but as in most cases they are colorless and empty when so found, I was wont to set them down as extraneous bodies, and suspected them to be fibres derived from the linen sheets and towels of the establishment. With this preconceived idea, they were of course overlooked and unrecorded. On turning up some old mounted specimens of "caddy stool" of the epidemic of 1851, I find these vessels still existing in them. The fragments of capillaries are found generally in single cylinders; I have seen, however, a few branched and bifurcated. Their tendency to break off seems to be at the *bendings*. The fracture is occasionally clean, but generally the broken end is split into filaments. A separation of filaments seems to be the mode in which the fracture occurs; and in many fragments, the length of which will occupy three or four times the field of vision of a half-inch object-glass, several partial fractures may be observed in which the tube at such points is split all around longitudinally, and a perfect sub-division is about to occur. At such points on the outer angle, and at the open ends of the capillary fragments, the *débris* of blood corpuscles is to be seen, and these sometimes form a little dossil which is seen connected with the tube of the vessel by fibrillæ. In the urine I have seen some of the capillary fragments enveloped in the tube-cast material, but encrusted evidently with flat instead of spheroidal epithelium. I cannot observe in the specimens which I have now sent, any epithelial lining within the capillaries; and yet their calibre, I think, is such as would lead us to expect its presence, were they not diseased. In some of the specimens which I have kept of the same expectoration, epithelial is visible alongside of the broken capillary vessels, as if it, as well as the blood, had escaped from their cavities. Finding that ecchymosis of the conjunctiva, epistaxis, and some other hemorrhagic appearances, are common in yellow fever long before the blood has apparently lost any of its fibrine; and finding that even when black vomit is established and the tongue is smeared with blood, the corpuscles are normal in appearance, I cannot but look on the textural lesion of the capillaries as primary effect of the yellow fever poison, and as the *cause* of the conges-

tions, ecchymosis, oozings, and hemorrhages, and all their consecutive mischief. The phenomena of the present minor epidemic also corroborate the view that the poison attaches itself to the mucous membranes in the first instance. Its early effects seem to be local. The system is thereby inoculated, and the poison spreads to all the analagous tissues of the body. A general impregnation of the *circulation* in the first instance would be scarcely compatible with the fact of the slow, steady march of the pathogenic influence through the various organs of the body. I enclose the case of Thos. Bailly, as reported in our hospital case book. It will be seen how his attack commenced like a "common cold"—began in the bronchi, and how it gradually extended to the conjunctiva, mucous membrane of the mouth and fauces, to the liver and kidneys, and its final resolution. I may mention in "reporting progress," that I have detected the glandular cells of the liver to be a common and very large constituent of black vomit. Their shape and size and tint, and the presence of minute oil-globules beside the nucleus in the epithelium, leave no doubt in my mind as to their identity. In the flakes of the black vomit sediment, also, there is not much difficulty, with the addition of liquor potassæ, in distinguishing the bile-flakes from the blood-flakes.

I remain, my dear sir, ever faithfully yours,

Dr. John Davy, F. R. S., etc.

D. BLAIR.

On the 11th, while visiting early in the morning a patient of the Seaman's Hospital, named Nolin, I saw in his basin a few ounces of black vomit, with clear, slightly brown-tinted, supernatant fluid, and well-defined sooty sediment in little flakes. This vomit seemed formed from intermixture of food, drink, medicine, blood, saliva or expectoration. Seeming to be as pure as could be obtained, I carried home with me for experiment a small phial of it. My first experiment was to evaporate a large drop of the sediment and serum on glass slips, in the sunshine. I mounted both in Canada balsam. That of the former has given me a fine specimen, in which, along with numerous loose oil globules, many of the glandular cells of the liver (in which the black vomit abounded) are well preserved. I noticed, when spreading out the sediment with needles, in order to render it sufficiently translucent for mounting, that it was somewhat flossy in texture, and showed a reluctance to be subdivided. After mounting these, I dropped a little of the sediment on a number of glass slips, for the purpose of applying reagents. In dropping it from a wide-mouthed pipette, I found the sediment had a tendency to fall in little separate masses or blebs.

They dried in the shade in a few hours. After drying, I found each specimen of sediment encircled with a pellucid ring of dry serum, which had oozed out of the sediment. This, under the microscope, showed only an amorphous glittering. But when I applied a drop of acetic acid to the centre, and it flowed over the margin, the whole pellucid ring started into view, filled with colorless, slightly opaque tubules, in the most beautiful loops and reticulations. I need not say with what surprise and delight I looked on this unexpected vision. The tubules were in two sets—the inner in regular network—their diameter filled one space of Ross' micrometer eye-piece, under the half inch glass. The external set of tubules were at least twice the diameter of that of the others, and their arrangement was in large open festoons. Some of them seemed terminal and acuminate at one end, and appear to lie in a curtain of basement membrane. Within both sets there appeared numerous minute granules. When the acetic acid was stirred about in the sediment (the colored central portion), numerous detached hepatic cells were brought well into view, and by tearing up this part of the sediment with needles, I observed that several of the large tubercles permeated the mass. As usual, several capillary fragments were present. After a few minutes, the tubules seemed to dissolve, and the acid evaporated, but on a re-application of the acid they re-appeared, although not at all with the former definition. To another specimen of the dried sediment I applied a drop of water, and found that by it I could detect the tubules, but they were faintly marked, and might have escaped observation had they not been looked for. These vessels are evidently quite different from the capillaries I have hitherto noticed in the excretions of yellow fever patients; while the latter are generally straight and rigid, or broken off at right angles, the others are beautifully wavy, and sometimes duplicate, and symmetrical. Alcohol and ether acted peculiarly on these tubercles. A movement was instantly caused among them. The meshes swelled up and unravelled themselves, and showed at the angles of the network that the gyrations preserved the same calibre as the other parts. The ether acted in a very fugitive manner, the field soon being obscured by condensed vapor and the haziness from the diffused fat of the liver cells. The dissolved fat of the alcohol did not offer much obstruction to the light. *Liquor potassæ* brought out the tubules faintly and transiently, probably from dissolving them rapidly, but it at the same time extricated several fine large films of basement membrane from the colored sediment. After the evaporation of the acetic acid and ether, the tubules became

again invisible. But after the evaporation of the alcohol they were still to be observed, but in an abnormal condition, and much less distinct than when wet with the reagent. The specimens acted on by liquor potassæ and nitric acid remained in a moist condition for several days, but without a trace of tubule after that time. In the first instance, the nitric acid acted fully as well as any of the other reagents, and brought out the festoons still more distinctly. But it, moreover, enabled me to trace some of the tubules into the centre of the specimen, and showed them to be a continuation of vessels contained in the dark material which had floated out while the specimen was drying. But still more important, this reagent enabled me to detect *within* them distinctly liver cells, with their minute oil globules. I think there can be little doubt that these tubules are the radical secreting ducts of the liver disengaged from their attachments (or sloughed off) by that destruction of capillary tissue which I am now satisfied is the essential anatomical lesion in yellow fever. May not these observations throw some light on what, I believe, is still an undecided point in anatomy—viz: the exact manner in which the bile radicles originate in the hepatic lobules? To me, what I have seen seems a demonstration of the induction of Kiernan on this point. It is true that only granules were visible in the sides of those tubules which had been floated out in the serosity; but may not these have been embryonic cells? or may they not have been the markings of the site of detached cells—the desquamatory process being common to the epithelial surfaces in yellow fever?

Nolin died after four days' illness. He was unusually yellow for that space of time. After death, I found (rather an unusual occurrence in yellow fever) the gall-bladder nearly empty, and what was in it only a little pale, pea-green mucus.

I believe I now understand the source and relations of that alvine evacuation in yellow fever, which, in the last epidemic, has been named the "*caddy stool*." It is generally liquid, like dirty water, with a gray, gritty sediment. This sediment under the microscope shows an abundance of crystalline material, chiefly triple phosphates or uric acid, or both; also, although invisible to the naked eye, numerous oblong plates, of a bright yellow color, which I have latterly called *bile crystals*. But the color of this stool is derived from innumerable little amorphous masses, granular in surface, and of a jet black color. This last material, I believe, is *carbon*. I have detected this black material and the bile crystals in several thin sections of the liver, in those who have died of the yellow fever in the present

epidemic; and I therefore infer that this peculiar stool is derived from the liver. I have also noticed that this stool seems most common when the respiratory function is embarrassed—in the pulmonary form of yellow fever. On the 5th inst., a Portuguese boy, named V. de Cambra, died with black vomit, well marked, in the Colonial Hospital. This was an exceedingly interesting case, from many circumstances. He suffered so much in his respiration, that his lips were markedly livid. His dyspnoea and restlessness were so great, that no careful auscultation could be made. His blistered surfaces bled so profusely, that the discharge might properly be called *hemorrhage from the skin*. Two hours before his death, I examined this blood, and found the corpuscles normal; and I washed a small clot which I took up with forceps from his blistered surface, and preserved it in Canada balsam as a proof of the integrity of the fibrine. This boy's liver and spleen are full of what seems to be identical with the carbonaceous particles of the caddy stool.

Summary of Dr. Blair's Views on Yellow Fever.—Since receiving the previous letters of Dr. Blair, we have been favored with a communication from him, containing the following remarks, which will doubtless obtain that consideration from our readers which is due to any opinion expressed by so careful an observer:

George Town, Demerara, May 25th 1856.

The proximate cause of the disease is an aerial poison which enters the system through the mucus membranes, on which it impinges, and to which it becomes attached. In some extreme cases, all the mucous linings of the eyes, nares, alvine passages, and bronchi, are poisoned at once; but more commonly, the first application of the poison is only partial. The primary and specific action of the poison is on the capillary vessels, and this action spreads and extends itself until the large viscera and bladder become affected in varying degrees. The mode of action of this poison on the capillaries is first as an irritant, and it ends by inducing a physical impairment of tissue. The consecutive lesions are, desquamation of epithelium, exfoliation of basement membrane, sloughing of the minute capillaries, and deep erosions. The symptoms are first those of an irritant poison, and afterwards are made up of the composite result of hemorrhage and the circulation of blood, which has been contaminated by impaired functions of the excreting viscera.

EDITORIAL AND MISCELLANEOUS.

TYLER SMITH'S LECTURES ON OBSTETRICS.—*Lecture XII.—Treatment of Abortion.*—The first symptoms of abortion are a sanguineous discharge, and the occurrence of lumbar, hypogastric, and coxal pain. The preceding pains are very much like those of the catamenial period. Some women abort, however, without pain. Rigors or shiverings sometimes usher in abortion. Sometimes there is diarrhea, and oftener irritability of the bladder. Sometimes coldness of the breast and abdomen, and cessation of the nausea of pregnancy. In cases of supposed abortion, an examination should be made, if possible. In such cases there may be no pregnancy at all. The finger should be inserted with great caution, to avoid exciting uterine contractions. In cases of threatened abortion, the os will be felt somewhat open, and the body of the uterus may be felt in front of the os, lower down than natural, hard, and contracted. If the process is active, the ovum may be felt in the cervix or even in the os.

The first consideration is whether the ovum can be preserved. With this end in view, all reflex irritation must be avoided, or removed, as far as possible. For general, local, or vascular excitement, a soothing regimen or diet. Blood-letting is rarely required, but leeching is sometimes well, in plethoric cases, especially if the symptoms occur at what would otherwise have been a catamenial period. They should be applied to the inside of the thighs, or to the perinæum. To allay great nervous excitement, full opiates are proper. They are, also, especially useful when there is intermittent uterine pain, or in continued lumbar pain like that of menstruation. The cannabis indica is given with good effect, to restrain sanguineous discharge. In early abortions, astringents are valuable, the loss of blood in such cases resembling menorrhagia. Acetate of lead, with opium, the mineral acids, oxide of silver, alum, and gallic acid, are the best remedies of this kind. Iced drinks are indicated where the discharge is profuse. Otherwise the beverages should be cool, to avoid uterine contraction. In the treatment of abortion, it must ever be borne in mind that every thing in the shape of food or medicine, which excites painful uterine contraction, must be carefully avoided. The local application of cold to the vulva, and the introduction of a sponge, or lint dipped in water, into the vagina, is useful within certain limits. Perhaps the most important of all remedial

means at our disposal, is rest in the horizontal position. The patient should be kept in bed in a cool apartment, lightly covered with clothes, as long as any colored discharge is seen, and for some days after on a couch, and not allowed to stand or walk. The mind should be kept as quiet as possible. The bowels should be kept open with mild laxatives. I prefer the senna confection, with bitartrate of potash. Castor oil is contra-indicated, as it irritates the uterus and mammae. When the abortion is threatened at a catamenial date, every precaution should be taken at a subsequent date to avoid all exciting causes. Every pregnant woman should note these dates, and be more careful at such times. Attempts to prevent abortion must be carried out assiduously, as they are sometimes successful in very unpromising cases. When bleeding is very profuse, the os uteri closed against the finger, and all the more powerful astringents have been tried in vain, the vagina must be plugged firmly with sponge or lint. This arrests bleeding and promotes coagulation at the mouths of the vessels. If, however, it is necessary to continue the plugging for any length of time, the uterus becomes excited by the irritation, and casts its contents. The loss of blood may be great enough to require stimulants—as brandy, etc. As abortions are sometimes protracted, the strength of the patient must be preserved. If hemorrhage cannot be arrested by the means above mentioned, the membranes must be ruptured, to stop hemorrhage and excite expulsive action of the uterus. In threatened abortion, the accoucheur must have all discharges saved for his inspection. Every clot, and all solid matter must be carefully examined, or he may overlook the ovum. It is well to mention that sometimes the ovum is dissolved, in early pregnancy, and passes with the sanguineous matters. In spite of the greatest care, cases will occur at menstrual dates in which the ovum passes thus unobserved. The patients menstruate regularly afterwards, and it is hard to say whether they were pregnant or not.

The indications to induce us to abandon all hope of saving the ovum are, sudden losses of blood to such an extent as to imperil the life of the mother; or such a drain as to endanger her health; it being certain, or nearly so, that the ovum is diseased or dead. If we can detect the ovum with the finger at the os uteri, or in the cervix, we may be certain that its expulsion is a mere question of time. As a rule, there is little hope of saving the ovum after rupture of the membranes and discharge of the liquor amnii. I have seen at least one exception, however, the waters being discharged at the fifth month. Fœtid discharges, particularly in early abor-

tions, are a pretty sure sign of death of the ovum: If the bag of the ovum can be felt in the cervix, it can generally be brought away with the finger. The introduction of the hand is sometimes necessary, and if the hemorrhage is alarming, the case urgent, and the os dilated to admit the finger, there is no objection. When the os is undilated, and hemorrhage very great, Dr. Simpson recommends one of his sponge pessaries, to dilate the os and cervix. The sponge must not remain long enough to become fœtid. Ergot and cannabis indica may be given when the mechanical delivery is unadvisable. Dr. Robert Barnes suggests galvanism, and I think favorably of it. Adrastic cathartic enema will often complete the expulsion most readily, through the reflex connection between the rectum and uterus. Various instruments have been proposed for the extraction of the partially detached ovum, but the finger is better than all. With all instruments yet invented, there is danger of injuring the uterus, whereas, with the hand in the vagina, a case can hardly occur in which the finger will not answer. I have never known it fail.

I have seen cases in which it was necessary to give chloroform before introducing the hand. I saw a case of this kind, in which the placenta had been retained in an abortion at the fifth or sixth month. The placenta had to be peeled off, and it could not have been done without chloroform. The dangers of retained placenta are well known, and in a case of difficulty I should not hesitate to advise the use of chloroform in similar cases.

The most favorable way in which an early abortion can occur, is when the detachment of the entire ovum occurs before the act of expulsion. The perfect ovum is then expelled, and the uterus contracts without much hemorrhage. As a general rule, the membranes remain after the expulsion of the fœtus; and the earlier the abortion, the longer the membranes and placenta are prone to remain. This is probably owing to the extended adhesion of the ovum to the internal surface of the uterus, and the feeble powers of the organ to contract on its contents. Sometimes the membranes of an early ovum will remain for weeks, but there is not the same tendency to decomposition and its dangers as in the case of placenta at full term.

The mechanism of abortion varies, according to the time between conception and the term of natural labor, at which the accident happens. Abortion may occur in cases where conception has taken place just before a period, when the motor action of expulsion would probably be limited to the Fallopian tubes, the ovum being carried out of the uterus with the menstrual discharge. In cases occurring in the early months, the canal

of the cervix and the os uteri have to be dilated before the ovum can pass, and this process of dilatation occupies a considerable time, and often causes much suffering. Dilatation having occurred, the ovum is expelled by the contraction of the uterus. These contractions are periodical, and are accompanied by pain as in labor at full term. The nearer the time of the abortion is to the time of labor, the more closely do the pains and the motor action and mechanism resemble those of natural parturition. In abortions occurring after the formation of the placenta, the tendency, as regards the expulsion of the ovum, is to imitate labor at the full term.

Usually, an abortion is not attended by any great danger. Women recover rapidly, and there is a remarkable aptitude for conception afterwards. They do, however, sometimes perish from loss of blood, convulsions, or rupture of the uterus. They are also liable to the dangerous and fatal affections which attend the puerperal state. Tetanus, resembling the trau-disease in character, has been known to follow; and, rarely, blood has been known to pass through the Fallopian tubes into the peritoneum, causing death by peritonitis. Abortion from small-pox and scarlatina is especially dangerous to the mother. Frequent abortions greatly damage the general health; profound anæmia is caused; and patients may die of secondary diseases, the result of debility induced by the recurrent miscarriages. The expulsion of the entire ovum is seldom followed by profuse post-partum hemorrhage; but small portions remaining are a source of irritation, and occasionally keep up bleeding for weeks. The management of a patient after abortion is the same as for one delivered at full term.

We must take cognizance of diseased states of the placenta, in the treatment and prevention of abortion. When the foetus is threatened with death because the placenta cannot perform its nutritive and respiratory functions, we may, through the mother, act upon the placenta, and assist it in the performance of its functions. Dr. Power prescribed the inhalation of air containing an increased quantity of oxygen, or the use of medicines containing a large portion of oxygen in a loose state of combination, as nitric acid, in cases where the child has been lost repeatedly in the latter months of pregnancy. Dr. Simpson states that he has found chlorate of potash useful in cases where the foetal respiration is imperfect. Every care should be taken to keep the blood of the mother in a healthy state. The sanitary condition of the foetus depends on the arterial blood of the mother. In cases where the father or mother are affected with syphilis, there can be no question of the propriety of mild mercurialization to ward

off abortion—recollecting that mercury itself may cause abortion. The treatment of fatty placenta is the same as for fatty heart, etc.

The prevention of abortion is an important subject. In women who abort from habit, when the nervous system is principally concerned in producing the accident, all emotional disturbances and reflex sources of irritation should be avoided as far as possible. The pregnant woman should not suckle, or be subjected to any mammary irritation. Irritation of the dental nerves should be guarded against. The rectum should be remembered, in its reflex relations. Ovario-uterine and vaginal irritation must be soothed, especially at the catamenial dates. Absolute rest is the most powerful preventive of abortion. All other attempts failing, a year's marital separation, and tonic treatment in the meantime, should be advised.

NEW ORLEANS SCHOOL OF MEDICINE.—In our May number, we announced that an institution bearing the above title, had been duly organized and incorporated. Since that time, the Faculty have issued their "Announcement," and they have at once been recognized by the principal schools in the country, and from all quarters they have received the most complimentary notices and cheering evidence of the good wishes of their professional brethren and fellow-citizens generally.

Thus far, things have progressed most satisfactorily, and the Faculty will be able to afford advantages to the student of medicine equal to any. Their building will be ready for occupation by the 15th of the present month, and we can safely say that it is not surpassed anywhere for comfort or convenience. It is large, well lighted and well ventilated, and most admirably located, being but a few steps from the gate of the Charity Hospital. Every room in the house is furnished with water from a large cistern on the top of the building; and the dissecting-room, as well as other portions of the building, is amply lighted with gas. A most complete chemical apparatus has been purchased and is every day expected to arrive, and a beautiful museum of everything necessary for the complete demonstration of the different branches, will soon be in place. For this latter feature, the Faculty are in a great measure indebted to their fellow-citizens, both in and out of the profession, who have contributed most liberally. The articles have nearly all been selected in Europe, and are, in every respect unexceptionable.

To the friends of medical education in the South, we deem it but necessary to say that this is an entirely private enterprise, conceived and un-

dertaken on the most liberal scale, with the one great object in view of elevating the standard of medicine, and thus doing a public benefit. The Faculty feel assured that such an important undertaking must meet with support. The innovations they have made on the established plans of teaching must everywhere meet with approbation, since there can be no reason or excuse offered for the general neglect of the proper study of diseases of women and children; and the more systematically the mind of the student is brought to bear on clinical instruction, the more competent must he necessarily be as a practitioner. The new chairs created for imparting instruction in these branches then, would seem to be absolute necessities rather than innovations.

At the present moment, when so much jealousy and harsh feeling exist between the two great sections of our country, the motive which naturally prompts one to be proud of the advantages of his locality is apt to be misconstrued by our brethren abroad into a disreputable feeling of sectionalism; but this shall not deter us from urging on the attention of the student of medicine the advantages which are offered him by home institutions. We offer not one word of detraction from the advantages offered elsewhere, but we must urge the fact that in New Orleans are to be found facilities for the study of medicine in all respects equal, and in some superior, to any in the land.

The New Orleans School of Medicine has been organized for the purpose of more fully developing the resources of our great city, and if labor and liberal pecuniary expenditure can ever command a cheering support, then are its Faculty sure of success in their undertaking.

We have recently received letters from students in the country, inquiring whether the dissecting-room would be opened by the 15th of October, and whether it would be safe for them to venture into the city at so early a period? We would say in reply, that from the present forward state of the building, it is confidently expected that dissecting will commence within a day or two of the time specified, and judging from the present extraordinarily good health of the city, we cannot apprehend the least danger in coming here at that time. Our own unacclimated citizens are even now returning home in large numbers.

THE MEDICAL WORLD.—*A Traitor in Our Camp—Benedict Arnold Arisen from his Ashes.*—Amongst the pile of exchanges, etc., on our table, this morning, we find one of the dirtiest quack sheets that ever degraded

the jaws of a printing press. It delights in the very significant and appropriate title of the "Medical World," and is edited by——whom do you suppose, reader?—By Brandreth? or Townsend? or McClintock? or some such worthy representative of the lowest class of society? No; the "Medical World," a sheet devoted to the vilest purposes of unmitigated quackery, is absolutely edited by *Dr. J. V. C. Smith*, late, and long, senior editor of of the *Boston Medical and Surgical Journal*!! Yet, do not jump clear out of your unmentionables, nor yet sink into sadness and despair. There is nothing to be surprised at, nothing to weep over, but much cause for rejoicing and gratulation. The cause of science, the threshold of honor and virtue, are no longer polluted by the touch of one for whom they, strengthened, if possible, by the good opinion of men, could not prove so alluring as the foul path of fraud and deception. If there is any good at all results from quackery, it all redounds to the advantage of the medical profession. So long as there can be found a foul magnet strong enough to draw the unprincipled McClintocks, J. V. C. Smiths, *et id omne genus*, from our midst, just so long is the medical profession safe from degradation, and sure in its exalted position in the estimation of all good men. Let us rejoice, then, that the rotten sheep has left the fold, and let us pray, that if there be any more of the same sort amongst us, they may soon follow his kind example.

CALIFORNIA STATE MEDICAL JOURNAL.—To our friend Dr. E. D. Fenner we are indebted for the perusal of a copy of the first number of the pioneer medical journal of the State of California. Some time ago we noticed the receipt of the announcement of this journal, and we at once placed the same on our exchange list.

The California State Medical Journal is issued quarterly, is edited by John F. Morse, M. D., and is published by James Anthony & Co., Sacramento, Cal. If the number before us is a fair specimen of what the Journal is to be, the enterprise deserves the cordial support of the profession in and out of the State. Its contents are varied and interesting, and in point of mechanical execution it will rank with any journal in the country.

TRANSACTIONS OF THE SEVENTH ANNUAL MEETING OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA—Held at Raleigh, N. C., May, 1856.—To a friend we are indebted for a copy of the above Transactions. We cannot forbear noticing in terms of commendation the inte-

resting contributions of Drs. Pittman and Manson. We have read them with unusual pleasure, and would think our library much better off for containing a copy. The Address of Dr. Edward Warren is high-toned and interesting. The Medical Society of the State of North Carolina numbers 101 permanent, and 22 honorary members.

PRACTICAL OBSTETRICS.—We are in receipt of the late circular of the Philadelphia Obstetric Institute, under the direction of Drs. Joseph Warrington and E. Wilson. It affords us great pleasure to know that this invaluable school is in a flourishing condition. To those who have partaken of its benefits it is needless to say anything in the way of commendation; they will ever remember the many valuable lessons taught them, and acknowledge that each hour spent within those unpretending walls was indeed well spent. To those who will go Northward in search of a medical education, we must say, that in this institution they will find the most thorough course of instruction on a single branch to be found anywhere in their travels.

Dr. Warrington has been teaching practical obstetrics for many years, and in our day he performed the whole of the arduous duties appertaining to his course. We are happy to see that he is at last willing to rest in some measure from his labors by associating with him Dr. E. Wilson, than whom no one is more thoroughly versed in the obstetric science and art, no one more industrious, no one more deserving of the most liberal support.

BOOKS AND PAMPHLETS RECEIVED.—Medical Jurisprudence. By Alfred S. Taylor, M.D., F.R.S., etc. Fourth American, from the fifth and improved London edition. Edited, with additions, by Edward Hartshorne, M.D., etc. Philadelphia: Blanchard & Lea, 1856.

A Review of the Present State of Uterine Pathology. By James Henry Bennet, M.D., Member of the Royal College of Physicians, etc., etc. Philadelphia: Blanchard & Lea, 1856.

For copies of the foregoing works we are highly indebted to the enterprising publishers. Taylor's Medical Jurisprudence has long been one of the indispensable volumes in every physician's library, and it is quite sufficient for us to say here that the present edition is rendered more valuable than any previous one, because it is not only thoroughly revised and corrected, but it is simplified by the judicious introduction of all improvements in this branch of medicine, as well as of important addenda by the accomplished American editor.

Bennet's little book on Uterine Pathology should certainly be read by every one at all interested in the subject. We have been highly in the recent sharp contest between Drs. Bennet and Tyler Smith, on this important subject, and although we cannot persuade ourselves to subscribe to the harsh treatment so highly recommended by the former, still we are happy to acknowledge ourselves amply rewarded for the perusal of his articles.

Human Physiology, Statistical and Dynamical; or, the Conditions and Course of the Life of Man. By John William Draper, M.D., L.L.D., Professor of Chemistry and Physiology in the University of New York. Harper & Bros.

The above work, while being a complete treatise on physiology, is, by its succinct style, admirably adapted to the wants of the medical student. The numerous engravings and wood cuts with which the work is embellished, are remarkable for excellence of execution; and some of them, taken from the work of Hirschfeld on the Nerves, by a photographic process lately improved by the author, will vie in correctness and usefulness with any thing we have ever seen. The work is a large octavo of over 600 pages, and is got up in excellent style. All of the above may be had at J. C. Morgan's popular bookstore.

Essays on the Physiology of the Nervous System, with an Appendix on Hydrophobia. By Benjamin Haskell, M.D., of Rockport, Mass. From the author.

Annual Announcement of Massachusetts Medical College, Boston, 1856-'57.

VELPEAU'S OPERATIVE SURGERY—Three 8vo vols.—Translated from the French by P. S. Townsend, M.D., under the supervision of Valentine Mott, M. D.—Fourth Edition, with Additions by Dr. Blackman.—We have received from the courteous publishers, the Messrs. S. S. & W. Wood, a copy of this valuable work. Velpeau's Operative Surgery, which has become the text-book of Old Europe in that branch of the healing art which requires the intervention of the hand, whether by itself or armed with instruments for the removal of diseases, is so well known and approved as to require no further commendation. If we may judge of the work by the flattering encomiums which have been already passed upon it by the medical press, and by our own impressions of its worth, it will be found to have filled a gap which long existed in this department of medical literature. No work that has ever been written on the subject exposes in a more philosophical and practical manner the principles of operative surgery.

Besides, it gives a concise and clear description of the topographical anatomy of the different surgical regions of the body. It is highly practical, and this merit is greatly enhanced by accurate and artistic plates. Accompanying the work is a quarto atlas of 22 plates, besides which are incorporated with the text over 200 engravings. It is unimpeachable in a typographical and pictorial point of view. We would therefore heartily recommend it to the medical profession—to medical students particularly—as a source of valuable information.

HEALTH OF OUR CITY.—In our September number we ventured the prediction that Yellow Fever would not become epidemic in our city during the present season. We make no pretensions to exclusive knowledge on the subject, nor would we have others believe that we feel ourselves capable of successful prognostication at all times. Our opinion was based on the generally healthy condition of the city, the pleasant temperature, and an evident (to our mind) indisposition on the part of the disease to spread, even when imported in its most perfect type from Vera Cruz. There were those who seemed confident of the approach of a different state of things, but the result has not supported their views of the subject.

There is much food for reflection in the new and palpable facts, that our city has been quarantined during the entire season, that genuine yellow fever has been imported from Vera Cruz in spite of that quarantine, that the ships bringing these cases discharged their cargoes at our wharves, that sporadic cases of yellow fever have been subsequently found in every quarter of our city, (the deaths from this disease being 7 in August, and 34 in September), and yet there has been nothing like an epidemic.

It will be seen that the total of deaths for the four weeks ending Sept. 21st., is 521, or 86 more than for the preceding four weeks. Yellow fever increased the list to the extent of 27, but we find the list of still-born increased to the extent of 11, that of consumption to the extent of 11, that of drowned to the extent of 6, and that of trismus nascentium to the extent of 18. All these added together, amount to 73, or nearly the whole of the increase of mortality.

While we write (26th Sept.) the temperature of our city is delightful, our streets are being thronged with returned citizens and visitors, joy and gladness are on all faces, except those of the undertakers, (we say nothing about the doctors), and health and prosperity seem once more promised to

New Orleans. A case of yellow fever is a rare thing in private practice; the Hospital receives the limited number occurring in our midst, and the unacclimated feel no hesitation in coming home.

REPORT OF DEATHS IN THE CITY OF NEW ORLEANS, for the month ending September 21, 1856—

Men, 220; Women, 72; Boys, 118; Girls, 111; Adults, 292; Children, 229; Males, 338; Females, 183; Colored persons, 65—Total, 521.

Diseases—Aneurism of Aorta, 1; Apoplexy, 8; Asthma, 2; Atrophica, 1; Bleeding from Lungs, 1; Bronchitis, 2; Burned, 1; Cancer, 1; Cancer of Uterus, 1; Catarrh, 3; Casualties, 3; Cholera, 4; Cholera Infantum, 6; Cholera Morbus, 1; Colic, 4; Cirrhosis of Liver, 1; Colic, Bilious, 1; Colica Pictonum, 1; Congestion of Bowels, 1; do. of Brain, 9; do. of Lungs, 5; Consumption, 54; Convulsions, Adults, 1; do. Infantile, 15; do. Puerperal, 2; Croup, 2; Debility, Adult, 1; do. Infantile, 15; Delirium Tremens, 9; Diarrhea, 15; Dropsy, 9; do. in the Head, 2; Drowned, 14; Cyanosis, 1; Dysentery, 14; Enlargement of Liver, 1; Enteritis, 7; Epilepsy, 1; Exposure and Want, 1; Fever, 1; do. Bilious, 5; do. Congestive, 25; do. Intermittent, 2; do. Nervous, 2; do. Panama or Chagres, 1; do. Puerperal, 5; do. Remittent, 2; do. Typhoid, 14; do. Typhus, 3; do. Yellow, 34; Gastro-Enteritis, 4; Hemorrhage of Womb, 1; Heart, Disease of, 2; Hooping Cough, 3; Hydrocephalus, 1; Hydrophobia, 1; Inflammation of Bladder, 1; do. of Brain, 4; do. of Liver, 5; do. of lungs, 8; do. of Stomach, 1; Insanity, 1; Intemperance, 2; Killed or Murdered, 2; Liver, Disease of, 1; Lues Venerea, 1; Marasmus, Adult, 1; do. Infantile, 11; Measles, 8; Meningitis, 5; Old Age, 4; Palsy, 2; Parturition, Difficult, 1; Peritonitis, 3; Phlebitis, 1; Pleurisy, 2; Premature Birth, 4; Scrofula, 1; Scurvy, 2; Softening of Brain, 1; do. of Stomach, 1; Still-born, 40; Strangulated Hernia, 1; Suicide, 2; Sunstroke, 4; Teething, 8; Tetanus, 9; Trismus Nascentium, 23; Ulceration of Bowels, 2; do. of Throat, 1; Unknown, 5; White Swelling, 1; Wounds, 2; Not stated, 15—Total, 521.

Diseases Classed.—Zymotic, 141; Nervous System, 92; Respiratory System, 78; Digestive System, 56; Circulatory System, 8; Generative System, 7; Integumentary System, 2; Sporadics, 32; External Causes, 57; Age, 4; Not specified, 43—Total, 521.

Ages.—Report of the Board of Health incomplete.

Nativities.—British America, 3; England, 8; France, 17; Germany,

46; Holland, 2; Ireland, 70; Italy, 1; Mexico, 1; Portugal, 1; Russia, 1; Scotland, 2; Spain, 3; Sweden, 1; Switzerland, 6; United States, 158; Not stated, 200—Total, 521.

ERRATA.—In Dr. Coxe's article on Intermittent Fever, in last number, for September, page 396, second line from bottom, read "derangement," instead of "arrangement," and on page 398, read "Liq. Arsen. Fowleri. ʒissadʒii," instead of "ʒiss," a very important difference.

EXCERPTA.

STRYCHNINE IN PROLAPSUS ANI.—Dr. J. F. Perkey records in the *Ohio Medical and Surgical Journal* the case of a female, twenty-eight months old, suffering with almost constant prolapsus ani from repeated attacks of diarrhea, cured by the above remedy. The bowel prolapsed to near a finger's length, and at times was very difficult to return in consequence of the contraction of the sphincter. The general health of the patient suffered much; appetite poor; strength feeble with some emaciation. By attention to diet and local applications of various kinds, some improvement of the general health and of the diarrhea was effected.

"Oct. 4th. Astringents seem to have had a bad effect by preventing the free return of the bowel. I then determined to try the effects of strychnine. Aware of its general tonic properties in certain conditions of the system, combined with its specific effects on relaxed and paralytic muscles, I felt encouraged to give it a trial in this case, with the expectation that it would stimulate the spinal nerves, and give tone to the bowel and sphincter ani. I accordingly prescribed what is so well known as Hall's Sol. Strych. Of this I ordered from three to six drops three times a day."

All other remedies were withheld, and two days after the bowel ceased to prolapse, and the patient recovered speedily. The same result followed in a subsequent attack the succeeding summer. The author states that he has found the same remedy answer an admirable purpose in numerous cases of chronic diarrhea.

He also remarks: "The good effect of strychnine in the morbid or irregular

forms of ague and kindred malarious diseases is so well known to the medical profession, that it would be needless for me at this time to speak of its administration in these affections."

STATISTICS OF ATTEMPTS TO OBLITERATE THE BRACHIO-CEPHALIC.

Surgeon.	Year.	Age.	Sex.	Result and Cause of Death.
1. Mott,	1818	57	Male	Death on the 26th day from repeated hemorrhage.
2. Graefe,	1822	adult	"	Death on 65th day from hemorrhage.
3. Norman,	1824	"		Death.
4. Arendt,	1826			Death on the 8th day from inflammation of sac, pleura and lung.
5. Hall,	1830	"	"	Death on the 6th day from dyspnœa and hemorrhage.
6. Bland,	1832	31	"	Death on the 18th day from repeated hemorrhage.
7. Bujalski,	before 1840			Death on the 2d or 3d day.
8. Bujalski,	"			Death on the 2d or 3d day.
9. Lizars,	1836	30	"	Death on the 21st day from repeated hemorrhage.
10. Dupuytren,				
11. Hutin,	1842	adult	"	Death the 11th hour; antecedent hemorrhage and exhaustion.
12. Porter,	1831			No ligature, patient recovered.
13. Kuhl,	1836	43		Death on 3d day of hemorrhage
14. Liston,	1838	adult	"	Death on the 13th day.
14. Key,	1844	"	Female	Failed, yet patient died of pulmonary distress and exhaustion.
16. Hoffman,	about 1840			Died.

In reality the ligature was tied around the innominata in only ten of these cases, viz: Mott's, Graefe's, Norman's, Arendt's, Bland's, Bujalski's, Bujalski's, Lizars', Dupuytren's and Hutin's. In Hall's, the ligature was passed through the artery—in Kuhl's and Liston's the carotid and subclavian were tied just beyond the bifurcation—and in Porter's, Key's, and Hoffman's the operation was abandoned and no ligature employed,

In every case where a ligature was applied either to the brachio-cephalic or near its division into right subclavian and right carotid, *i. e.* thirteen cases, death has followed; even in two where the operation was abandoned, there was a fatal result in one; and in the sixteen cases one alone recovered, and in that no ligature was used, the vessel having been simply exposed, the cure in this case was spontaneous, and in all probability entirely independent of the operation.

In this collection, embracing sixteen cases in which the ligature was

attempted to the arteria innominata, I have given, as far as I could obtain it, the history of each one. Other similar operations may have been made, but these are all that are found on record.

In conclusion, after this exposition, let me ask, who will again venture to tie the brachio-cephalic artery?—*Paul F. Eve, M. D.*

BANKSTON, Monroe Co., Ga., May 8, 1856.

VITIS VINIFERA RADIX, AS A DIURETIC.—*Gentlemen*—From a considerable experience, I have found the Grape Vine Root to be one of the best diuretics known to me. Scarlet fever has been in my section for some length of time, having many cases of genuine *Anasarca* to treat as a sequel of that disease, I have given the Grape Vine Root a fair trial. In a number of cases nothing else prescribed, the water moving off rapidly.

I have the root procured, and then placed upon a heated oven-lid and there burnt into ashes.

R. Two table spoonsful of the ashes, pour on a pint of boiling water. The patient drinks it *ad libitum*.

Another prescription often used—R. Two table spoonsful of the ashes. ʒii bitartrate potass., pour on a pint of boiling water. Taken *ad libitum*.

CASE.—A case of *Anasarca* of the lower extremities—the subject was a stout negro woman, *enciente* some months, plethoric, robust, hearty woman. Her legs, thighs and left labia much enlarged. R Grape vine root, two table spoonsful, bitartrate potass., ʒii . Pour on a pint of boiling water—patient taken the above prescription, *ad libitum*, consuming about a pint a day, in less than five days the swelling had completely subsided.

I mention this case for the benefit of the young practitioner as he is often at a loss how to treat such cases.—*Atlanta Med. and Surg. Jour.*

ON CONIIN.—*By Dr. Schroff.* (Wochenblatt der Zeitschr. der k. k. Gesellsch. der Aerzte zu Wien, No. 2 and seq. 1856) Twenty-seven experiments were made with coniin upon the human subject, three medical gentlemen having each submitted to nine. The doses given varied from 0.003 grammes to 0.085 grammes. The last and strongest dose which was taken corresponded to two drops of newly prepared coniin taken out of a bottle opened for the first time. Dr. Schroff has found, by observations on rabbits, that exposure to the air weakens the operation of the alkaloid.—This dose was dissolved in thirty drops of alcohol. The following account of the symptoms produced embraces those which resulted from the opera-

tion of smaller quantities. A very sharp taste, strong burning in the mouth, sense of scraping in the throat, salivation; the epithelium of the tongue was removed in spots; the papillæ were strongly prominent, and the organ lost sensibility, and was as if paralysed. In about three minutes, the head and face became very warm, accompanied by a sense of fulness, weight, and pressure in the head (symptoms which were not produced by the smaller doses). These head symptoms reached a high degree of intensity; became associated with giddiness, inability to think or to fix the attention on one subject, with sleepiness, great general discomfort, and malaise (*Katzenjammer*), which, in a less degree lasted till next day. The vision was indistinct, objects floating together, and the pupil was dilated; the hearing was obtuse, as if the ears were stopped with cotton; the sense of touch was indistinct, and there was a feeling of formication, and as if the skin were covered with fur; general weakness and prostration, so that the head was with difficulty kept erect; the upper extremities could only be moved with the exertion of much effort; and, on account of the weakness of the lower extremities, the walk was very uncertain and tottering. Even the next day the weakness of the extremities continued, slight trembling being induced by much movement. While going home, the muscular debility was especially great, the walk consisting rather of a throwing forward of the body, so as to bring the muscular action into as little use as possible. On stepping, and when at home, on pulling off the boots, cramps in the calves of the legs occurred, as well as in other groups of muscles when they were called into action—as, for instance, in the balls of the thumbs when the thumbs were closely bent. This symptom was constantly observed in two of the experiments when the dose was at least one drop. Under strong effort to move, pain in the muscles and legs occurred. Fresh air diminished the giddiness and fulness in the head, but in one of the experiments, occasioned temporary pain in the course of the supra orbitalis and cutaneous malæ nerves. Eructations, abdominal rumbling and distension, nausea, even efforts at vomiting, occurred in all the subjects, even after small doses; in one case, actual vomiting took place. Sometimes there was a tendency to diarrhea. No effect was produced upon the urine. In all the cases there was dampness of the ends of the fingers; and after large doses, the hands were absolutely moist. The countenance was sunken and pale; the hands were cold and blue. After the larger doses, the pulse commonly increased in frequency to the extent of a few beats, but subsequently it always lessened; yet this diminution did not bear that relation to the extent of the

dose as where aconite was given. Respiration was often yawning, but otherwise no constant anomaly presented itself. The sleep was good and mostly very sound.

OBSERVATIONS ON THE TEMPERATURE OF THE BODY IN INTERMITTENT FEVER.—*By Dr. S. A. Michael.* This paper contains two series of observations on the temperature of the surface in persons suffering under intermittent fever. The first contained eleven cases of intermittents of different types, in which the observations were taken every hour, or at least frequently in the course of the day; the second comprises three cases, in which the observations were made during the paroxysms themselves, and generally every five minutes. The state of the pulse and the respiration were generally noted at the same time. The number of thermometric observations amounted to about 260. They were taken by placing the thermometer in the armpit. The following are the general conclusions arrived at by Dr. Michael :—

1. An increase of temperature from the normal state or the lowest apyretic condition, at first slow, shortly before or at the commencement of the rigor, rapidly and continuously advances, and then attains its maximum by successive intermittent advances.

2. The temperature remains at its maximum height for a period never exceeding two hours, but generally much less.

3. The diminution always takes place less rapidly than the elevation.—It is affected in a graduated manner, depression of the temperature being followed by an arrest.

4. The sensations of the patient are not in the ratio of the changes of temperature. The temperature is above that of the normal condition, both at the commencement of the rigor and at the termination of the sweating stage. The maximum temperatures occur either during the hot stage, towards the termination of the cold, or at the commencement of the sweating stage. These remarks apply to the various forms of intermittent fever.

5. In most of the cases, the maximum lay between 32° and 33° R. (104°—106½° F.) The highest maximum was 33½° R.

6. The duration of the paroxysms varies considerably in the cases presenting a tertian type. The limits are sixteen and thirty-two hours; in the quotidian forms they are nine and eighteen hours.

7. The duration of the period of increase is always shorter than the period of decrease in the quotidian forms; in the tertian it is sometimes shorter, sometimes longer.

8. During the free intervals, the temperature generally falls below the normal temperature, still, the instances—especially of the quotidian fevers are not rare in which it is at least several degrees (Réaumur) above the normal temperature.

9. After the exhibition of sulphate of chinidine (the salt commonly employed in Dr. Michael's cases) in doses of from ten to fifteen grains, there is either no recurrence of increase of temperature, or a single increase of almost the same intensity, but with less violent subjective symptoms; or again, the temperature rises, though to a lower degree, and the symptoms are scarcely perceptible; or, finally, there is a feeble increase of temperature without any subjective symptoms. Only one case occurred in which there were two increases of temperature.

10. During convalescence, the temperature is generally under the normal elevation, but may occasionally rise a few tenths of a degree above it. At times there are evening exacerbations or evening remissions, or it is the same morning and evening.

[We devote a considerable portion of our *Excerpta* Department to the following succinct and highly interesting account of Yellow Fever in New York. A perusal of it can scarcely fail to interest the reader.—Eds.]

YELLOW FEVER IN NEW YORK.—The appearance of this disease in the immediate vicinity of our city, and the apprehensions felt by many, even of the profession, that it may visit us in an epidemic form, have led us to devote a few pages in this number to a sketch of the history of its existence and progress among us in former years, with the addition of some of the leading facts connected with its appearance and progress up to this time during the present year, which, we trust, will not be without present interest, while it may also prove convenient for future reference. For nearly the whole of the facts connected with the subject previous to the present year, we are indebted to Prof. A. Clark, who has kindly allowed us free access to his notes, collected for another purpose, a verbal abstract of which he gave at the last meeting of our Academy of Medicine, and which, instead of reporting under the head of "Proceeding" of that body, we have—for the sake of greater accuracy and more detail than were possible for him at that time, under the circumstances of the case, without notice and from mere recollection of his notes—thrown together under the present form.

For the greater part of the facts and statistics of the present year, we

take pleasure in acknowledging our indebtedness to our friend, Dr. E. Harris, the efficient physician of the Marine Hospital at Staten Island, who has, on former occasions, laid the readers of the Journal under obligations by his valuable contributions. The facts respecting the recurrence and fatality of the disease in the South part of Brooklyn and its neighborhood, are taken from a letter on the subject to the Commissioners of the Board of Health of our city, by Dr. A. B. Whiting, former Health Officer of Quarantine, published in our daily papers.

The first appearance of yellow fever in the British Colonies was, according to Sir Gilbert Blane, at Barbadoes, in 1647; its first appearance on the American continent, at Boston, 1693. In 1699, it appeared in Charleston, S. C., and at Philadelphia. Its first appearance in New York, so far as we know, was in 1702, when a fatal disease prevailed, which is recorded under the name of "the great sickness," and which was probably yellow fever, although there is no substantial authority for thus naming it. Five hundred died up to Sept. 30 of that year, and seventy more during the succeeding week. The population of the city was then probably about 6,000 or 7,000. The mortality was so great, that a fast was proclaimed by the Governor in consequence of it.

Its next appearance in this city was in 1741 and 1742; but the mortality was inconsiderable during these years. According to Mr. C. D. Colden, in a paper written in 1743, it appeared chiefly in parts of the town which were built on Swampy ground, from which the water could not be easily drained, and there was a filthy smell from the slips.

It appeared the next time in 1747, but the mortality was then slight; and not again until 1791, when, according to Dr. Seaman, it prevailed to a considerable extent in a part of Water Street, and in the neighborhood of Peck Slip. In 1792, according to the same authority, there "was little alarm about yellow fever," and probably little or none of the disease existed. In 1793, there was none of it, except a few cases brought from Philadelphia, with which it began and ended. In 1794, there was some alarm on the subject, and a Committee of Investigation was appointed; but the mortality seemed to have been inconsiderable. Most of those attacked lived or had worked in the neighborhood of the filthy slips, especially one known as "New Slip." Dr. Seaman ascribes the existence of the disease mainly to the cleaning out of this slip, which was in a filthy state, during the hot weather of the summer.

In 1795, it is spoken of as a great scourge, though the mortality by it

is not given. It became general about the easterly and lower part of the town, a part spoken of as containing the greatest amount of decomposing animal and vegetable matter. The disease occurred again in 1796, but was confined to the neighborhood of Whitehall, where there were new fillings of docks, made up of decomposing materials. It again appeared in 1797, in which year twenty-three deaths are mentioned as taking place in October, which were all that had occurred up to that time; but there were perhaps half a dozen deaths by it subsequently. One-half of these deaths were in a small part of the east side of George (now Market) street, and the greater portion of the remainder about Flymarket (the foot of Maiden Lane), both of which places are remarked as being full of filth and decaying materials. Dr. Seaman says that by early attention to cleanliness, the deaths were reduced to thirty, though the disease was as malignant as in 1795.

1798 was the year of the great epidemic. The fever began in August, and did not cease until the middle of November. It prevailed at first in parts where there was new-made ground, but afterwards, with less severity, in portions of the city which had been previously exempt. The mortality was ascribed to the great heat and moisture of the season, and to large quantities of spoiled beef and fish stored in different parts of the city. A heavy rain fell on the 14th of August, after which the temperature, which had been very high, fell a very little, and subsequently rose again, ranging from 82° to 90° Fah., but did not go above 90° *after* the rain. The hottest day was the 9th of August, when the thermometer rose to 96°; and from the 14th to the 18th of that month it ranged from 78° to 90°. The highest temperature in 1795 in July was 88°, and in August 93°—in 1796, the highest temperature in July was 88°, and in August 89°—in 1797, in July, 90°; in August, 82°—in 1798, in July, 94°, and in August 96°. The mortality in 1798 was 2,086, the population of the city at that time being about 55,000. The mortality from the same disease that year in Philadelphia was 3,446. Twelve physicians fell victims to it in this city.

In 1799 the disease began early, several cases having appeared in July. The number increased in August, and reached its greatest height in September, declining in October, and becoming nearly extinct in November. The season was mild. The principal seat of the disease was the new-made ground on the east side of the city. The desertion of the inhabitants commenced early and became general, especially from parts of the city where

the disease commenced, and where it raged with the most violence. The number of both attacks and deaths fell far short of those of the last year.

In 1800 it appeared only in a slight degree. Intermittent, remittent, and yellow fever prevailed together, in low, damp, and hitherto unhealthy parts of the city. From 50 to 80 deaths were ascribed to yellow fever. In only two instances did the recognized yellow fever occur in more than one person in the same family. Deaths were distributed through twenty-five streets. Dr. Seaman states that of one hundred and fifty cases seen by him, all but one occurred in persons living or having stores in Pearl street, or between that street and the East River. There was a slight frost on the 3d or 4th of October, but the disease did not subside immediately on its occurrence, but continued for ten days afterwards. It prevailed most in September this year.

In the following year, (1801) it commenced about the middle of September, and from that time to the middle of October, about 140 persons died of it, besides a considerable proportion of 30 cases sent to the Marine Hospital. The greatest number of deaths this year was in East Rutgers street. The soil there was good, but there was a filthy lane in the neighborhood in a state of great neglect, and which was the resort of most degraded occupants, expelled from bawdy houses in other parts of the city, to which the authorities would pay no attention. The next principal seats of the disease was in Front and Water streets, between Flymarket and Coffee House Slip. It also prevailed to a less extent in other parts of the city. In 1802, it does not seem to have appeared here, though it prevailed in several other parts of the country.

In the year 1803, from the 18th of July to the end of October, from 600 to 700 are reported to have died of yellow fever in the city. The first public alarm was caused by cases in Coffee House Slip and its neighborhood; but it appeared in other places about the same time, and left fewer parts exempt than in former seasons. The principal ravages of the disease were confined to the streets on the margin of the two rivers, where the inhabitants were mostly the poor, uncleanly and dissolute classes. The weather was pleasant in June, but became excessively hot early in July; and, with the exception of four or five days, exceeded in continued intensity anything before remembered—the thermometer ranging frequently above 90°, seldom falling below 80°; the nights afforded no relief from the heat. The portions of the city first affected were early deserted.

In 1804, there was no malignant disease in any of the Atlantic cities except Charleston. The temperature of the summer and autumn here was mild.

In 1805, the first case appeared early in June, in Roosevelt street, in mild weather. On the 9th July, the weather having become hot, a case occurred in an alley opening into Maiden Lane, in a stable, which was soon after followed by two others in the same stable. Another case appeared in Water street on the 24th, and on the 5th of August, a case in Greenwich street, and soon after, other cases of a suspicious character in other parts of the town. The weather continued warm and dry, and by the 28th of August, the drought and heat were severely felt. On that day there was a moderate fall of rain; and in less than forty-eight hours the number of cases was alarmingly increased in all parts of the city. It was declared epidemic early in September, and continued to prevail with variable severity until the latter part of October. The number of deaths reported by the City Inspector was 270. After it became epidemic, the greater part of the cases were from the low and made grounds which had been the chief seat of former epidemics. After the 20th of September it spread to the North River, and continued in Greenwich street and its neighborhood until it ceased.

In 1806, there were several well characterized cases of yellow fever in the course of the season, from June to November, though there was nothing approaching an epidemic; and in 1807 there were a few sporadic cases (less than twenty) mostly in September, although no cases appear to have been reported to the City Inspector during either of these two years. The year 1808 was one of exemption from the disease.

In 1809, the yellow fever occurred in Brooklyn from July until late in September, during which period there were between thirty and forty deaths. Its seat was confined to the neighborhood of a new dock, where they had been digging up material on the banks which was offensive. About twenty who took the disease in Brooklyn sickened in New York, of whom thirteen appear to have died. These persons are said not to have communicated the disease in a single instance.

From the year 1810 to 1818 inclusive, no cases of death by yellow fever are reported by the City Inspector, except a single case in 1817, nor is anything said in the journals about the existence of the disease here.

In 1819, the disease again appeared in a mild form, and hardly deserving the name of an epidemic. The first case appeared in the latter part of

August, and sixty-three were reported in the whole, of which thirty-seven died, including twelve at Fort Stevens, and probably not including six among the poor sent to Fort Richmond. The weather for several weeks immediately preceding its appearance, was remarkable for the unusual and continued heat. In August, the thermometer at noon never stood below 80°, and during several days was at or above 90°. The atmosphere was unusually calm, and there was but very little rain, so that there was great suffering from drought. The disease was almost exclusively confined to the neighborhood of Old Slip. The Board of Health recommended, immediately after the occurrence of the first two cases, the desertion of that part of the city lying between Pier No. 8 East River, and Wall street and as far back as Pearl street, and provided quarters for one hundred and fifty poor persons at Fort Richmond.

In 1821, the yellow fever did not occur in the city; but Dr. Joseph Bayley, Health Officer of that year, gives an account of twenty-nine cases that occurred on Staten Island, "in consequence of their intercourse with the Quarantine grounds." Dr. B. was a contagionist, but he thinks that all but three or four of these cases had their origin in infection spreading from vessels at or near the Quarantine wharf, or from the washing of foul clothing brought from these vessels. He advises the abandonment of the parts of the town where the disease became fixed, and remarks that "since experience has taught us that this fatal malady can be arrested in populous places by deserting the infected spot, its ravages have become limited. If the same measures had been pursued in this city in the years 1705 and 1798, and 1803 and 1805, or in the year 1810, it is probable that an equally favorable result would have ensued." He believes that he has fixed the period of incubation of yellow fever at five or six days, and conceives that he has found "proof that the contagious air on board of vessels is not communicated 250 feet in pure air, aided by a favorable (favoring) current of wind;" though he does not doubt that it is carried a considerable distance. Of the 29 cases, 21 proved fatal. The disease did not spread to the city that year.

In the year 1822, the disease began in the city on the 18th of July, in a neat, airy, brick house on Rector Street, one door from Washington; and at or about the same time a person was attacked on the S. W. corner of Washington and Rector Streets, who was sent to the New York Hospital, and died there on the 16th. The members of the only other family living in Rector Streets, between Washington and Greenwich Streets, were ad-

vised to leave the neighborhood, which they did on the 22d, and yet one of their sons had the disease severely after reaching Long Island. The disease gradually spread up Rector Street, and through the several cross streets to Broadway, which it crossed, and afterwards traveled northward to Fulton Street, and in a southerly direction to the foot of Broad Street and Old Slip, a few cases appearing in the north-eastern side of the city. The number of cases increased until the 9th of August, before the Resident Physician was willing to announce its character. After that, the Board of Health met daily till late in October. The disease continued to spread until the 20th of September, when a very heavy rain occurred, followed by cold, strong, northerly winds for two days, by which the outdoor poison, or that in the streets, seemed to be entirely destroyed. The extension of the infected district, which till then had been gradual and well-marked, ceased, and in four or five days the cases diminished till the 8th, when *not one* was reported to the Board. Shortly after, however, the poison again showed itself; but the subsequent cases appear to have arisen from infection shut up in the houses. A general removal, which took place from the lower parts of the city, was the only means of safety left the inhabitants. The number of deaths by yellow fever officially reported to the Board of Health this year from the commencement of the epidemic to its close, November 5th, was 230, the number of cases reported having been 411. It is proper to state that, according to the Report of the City Inspector for that year, the number of deaths by yellow fever was only 166. According to the report of the Board of Health, 15 cases and 7 deaths occurred from the 10th of July to 1st August; 95 cases and 58 deaths from 1st August to 1st September; and 211 cases and 109 deaths from the 1st of September to the 1st of October. The origin of the disease was ascribed by Drs. Walters & Bayley (who wrote papers on the subject) to the landing of the cargoes of six vessels from Havana, then a sickly port. The records of the revenue department show that 2,730 boxes of sugar were landed within the limits of one hundred and twenty yards from Rector Street, between the 14th of June and the 8th of August, more than half this quantity from the 2d to the 8th of August. This sugar was brought in decked lighters from Quarantine. Both these physicians deny the existence of any local cause adequate to produce this fever. The temperature this Summer was high, ranging as follows, at two o'clock, for four months: in June from 70° to 93°, one day only falling to 65°, standing at or above 80° on 17 days, and at or above 90°

on six days; in July ranging from 81° to 96° , being at or above 85° every day but five, and at or above 90° five days; in August, ranging from 75° to 94° , falling below 80° only twice during the month, standing at or above 85° on nineteen days; and in September, ranging from 70° to 94° , standing at or above 85° on ten days at the hour mentioned. In October, the range was from 84° to 54° , but the average was not high.

Up to the twenty-fifth of August of the present year, there had been admitted to the Marine Hospital at Quarantine, one hundred and thirty-three cases of yellow fever, and in addition to this number, eighteen cases had occurred among the permanent residents within the Quarantine enclosure.

One case of the disease was received from Havana in the month of April; but no other cases were seen until June 18th, when the bark *Julia M. Hallock*, from St. Jago de Cuba, arrived, with captain, first mate, and a passenger sick with the fever. On the 21st of the month, the ship *Jane H. Gliddon*, from Havana, arrived, having a passenger and four seamen dangerously ill with it; and from the same vessel three other cases were subsequently received. These were all of a strongly-marked character; and some of them occurring many days after the ship's arrival, an infected condition of the vessel was naturally inferred, and the spread of the infection anticipated. From the ship the infection did spread, until at least twenty of the stevedores and lightermen who were engaged in unloading her, contracted the disease.

On the second of July, one case of yellow fever was received from the *Lilias*; on the third, one from the *Eliza Jane*; and on the sixth, the ship *Lady Franklin* arrived from Matanzas having eight cases of it, and one seaman dead with it. Thus the prevalence of this malady seemed fairly inaugurated for the season.

The infected vessels were principally freighted with sugar; though the *Jane H. Gliddon* had a portion of a cargo of rags, about thirty bales of which were subsequently stored in an open shed, upon the U. S. Government Dock at Quarantine.

On the fourteenth day of July, a stevedore, who had been engaged in unloading these rags from the *Gliddon*, was admitted to the Marine Hospital, with black vomit. From this date, the fever rapidly spread among the laborers employed in unloading the infected vessels, whose cargoes were being lighted to the Atlantic Docks, Brooklyn. Thirty of these men, sick with the fever, have been conveyed to the Marine Hospital from the city, and from various parts of Staten Island.

Cases of yellow fever have already been received from as many as thirty different vessels, arriving from the various West Indian ports. Besides these, a considerable number of cases have been admitted from the city, in which the source of the infection could not be completely made out, owing to the moribund or delirious condition of the patients; but in all cases, it has been ascertained that these persons had been freely exposed near the waterside in the lower wards of the city.

As regards the special cause, or causes, which are believed to have introduced an endemic of yellow fever within the Quarantine inclosure, it seems highly probable that the infected goods which were landed upon the Government Dock, together with the close proximity of highly infected vessels lying at anchor in the stream, produced an infected state of the atmosphere in a narrow zone by the waterside. The physician of the Marine Hospital reports that this endemic appears to have ceased; and it is worthy of remark that the infected goods referred to, and the vessel near by, were long since removed.

That our readers may see how the present compares with the past years of the prevalence of yellow fever at the Quarantine establishment, we append the following statistical table, which has been prepared for another purpose by Dr. Harris, the physician of the Marine Hospital, and which he has kindly placed at our disposal:—

A Tabular View of the Statistics of Yellow Fever as it prevailed in the Port of New York, at the Marine Hospital, from 1799 to 1856.

	1799	1800	1801	1802	1803	1804	1805	1806	1807	1808	1809	1810	1815	1816	1817	1818	1819	1820	1821	1822	1823	1824
Admitted,.....	163	38	35	5	141	8	43	2	3	1	2	1	19	2	5	7	26	2	26	105	8	28
Discharged,.....	87	17	19	3	72	3	18	2	...	...	...	...	12	2	1	3	7	...	10	58	3	20
Died,.....	76	21	16	2	69	5	25	...	3	1	2	1	7	...	4	4	10	2	16	47	6	8

	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	1850	1851	1852	1853	1854	1855	1856
Admitted,.....	2	2	6	1	4	2	1	12	3	2	26	4	18	9	...	2	1	26	...	...	...	...	2	1	26	...	...	...	1	4	45	12
Discharged,.....	1	2	2	1	4	1	...	10	2	...	18	...	15	7	...	2	1	14	...	...	...	...	...	...	...	...	...	...	30	25	7	...
Died,.....	1	2	4	...	...	1	1	2	1	2	8	4	3	2	...	...	...	12	...	...	...	...	...	...	...	...	...	1	14	20	5	...

The average mortality at this Hospital will be found to have been about 35 per cent.

The disease has also appeared this year on the southern end of Long Island, in that portion of Kings county lying along the Narrows from Red Hook to Fort Hamilton, the first case having appeared at Fort Hamilton, in the latter part of July, in the practice of Dr. Bailey, Surgeon of

the Fort. It then appeared in the village of Fort Hamilton, and soon after at Yellow Hook and Gowanus, and finally at Red Hook; the latter place being in the confines of Brooklyn. According to the statistics by Dr. Whiting, which appear to have been collected with care, 73 cases and 35 deaths had occurred in this region up to the 22d of August, when the disease seemed to be decidedly on the decline. Dr. W. has not the least doubt that the disease is wholly and purely yellow fever, notwithstanding the doubts on this point which have been expressed by some. Most of the cases have occurred within a few rods of the shore, and none at a distance of more than fifty rods, a fact which seems fully to warrant the opinion that the disease owes its origin to infected vessels at Quarantine and Gravesend Bay. In no case has it been communicated to a person living out of this immediate locality. These vessels have been removed, and the disease has now almost ceased. Another account (newspaper) states that the disease first appeared on a bluff overlooking Gravesend Bay, where infected vessels were lying at anchor, and gives fifty-eight as the number of deaths at Fort Hamilton and Yellow Hook. All accounts agree as to the origin of the disease from infected vessels at Quarantine.

The weather during the last two weeks of July was very hot and dry, the mean average of the thermometer having been 85° and 81°. In the early part of August, there was a very heavy fall of rain, after which the heat was somewhat moderated; and during the last half of August, the weather was unusually cool, for the season, the mean average of the thermometer during the last two weeks having been 71° and 69°.—*New York Journal of Commerce.*

ON A NEW MODE OF REDUCING STRANGULATED HERNIA.—*By Baron Seutin.*—(Bull. de Therap., tome I. pp. 161 & 206.) Baron Seutin declares, that with his mode of reducing strangulated hernia, which he has now practiced for twenty years, he hardly ever in his large practice finds it necessary to have recourse to an operation.

The patient is laid upon his back, with the pelvis raised much higher than the shoulders, in order that the intestinal mass may exert traction upon the herniated portion. The knees are flexed, and the body is slightly turned to the opposite side to that on which the hernia exists. The surgeon ascertains that the hernia, habitually reducible, cannot be returned by continuous and moderate taxis. He next seeks with his index finger for the aperture that has given issue to the hernia, pushing up the skin

sufficiently from below, in order not to be arrested by its resistance. The extremity of the finger is passed slowly in between the viscera and the herniary orifice, depressing the intestine or omentum with the pulp of the finger. This stage of the procedure demands perseverance, for at first it seems impossible to succeed. The finger is next to be curved as a hook, and sufficient traction exerted on the ring to rupture some of the fibres, giving rise to a cracking very sensible to the finger, and sometimes to the ear. When this characteristic crack is not produced, the fibres must be submitted to a continuous forced extension, which, by distending them beyond the agency of their natural elasticity, generally terminates the strangulation. This mode of procedure is more applicable to Gimbernat's ligament, the hooking and tearing of which are more difficult than in the case of the inguinal ring. Considerable strength has sometimes to be exerted, and the index finger becomes much fatigued. When, in consequence of the narrowness of the ring, the finger does not at once penetrate, it is to be pressed firmly against the fibrous edge, and inclined toward the hernia. After a time the fibres yield and the finger passes. When the finger becomes fatigued it is not to be withdrawn, but it should be supported by the fingers of an intelligent assistant, who seconds the action it is desired to produce. In inguinal hernia, the traction should not be exerted with the finger upon Poupart's ligament, but in a direction from within outwards, and from below upwards, by which the aponeurotic layers between the two ligamentous pillars constituting the inguinal aperture are easily torn through.

The ring is then enlarged by this tearing, just as if it had been divided by a cutting instrument, or largely dilated, and reduction takes place easily, by performing the taxis in a suitable direction. The mobility of the skin, its laxity in parts where hernia prevails, and its extensibility, greater in proportion to its thinness and to the absence of a lining of fatty cellular tissue—by allowing the sliding and thrusting of this membrane in front of the finger it cushions, affords protection to the intestine from all immediate contusion. When the strangulation is induced by the issue of a considerable mass of intestine, or an accumulation of fæcal matters, it is desirable first to disengage one of the extremities of the noose, and to seek to expel the gas or fæcal matters by moderate pressure, in order to facilitate the reduction of the tumor. In the few cases in which the finger cannot be introduced, a small incision may be practiced in the skin, and the handle of a spatula or any blunt instrument may be passed in by separating the cellular tissue. Pressing this against the border of the ring,

while avoiding the intestine, this orifice may be eroded or dilated without danger. The greater the resistance offered by the aponeurotic fibres, the greater will be their tension, and the more easily will their laceration be produced.

As a general conclusion, it may be laid down, that the facility and promptitude of this procedure, and the immunity that attends it, ought to diminish the gravity of the prognosis of strangulated hernia, by rendering the circumstances under which recourse need be had to an operation quite exceptional. Such exceptional cases will be found (1) in old irreducible herniæ. (2.) When the strangulation in inguinal hernia occurs at the internal ring. Generally the external ring and inguinal canal are large, and allow of the easy penetration of the finger: and then the new method is applicable, and the rupturing or dilatation of the internal ring should be attempted, and the manœuvre is rendered the easier by the fact, that in these cases the canal is much shortened, and the two rings much approximated. If, however, the external ring is too narrow to admit the finger, an operation is required. (3.) When there are general symptoms of a gangrenous state of the intestine.

CEPHALALGIA—*Hydrochlorate of Morphia in Coffee*.—M. Boileau relates an obstinate case of cephalalgia, which he treated by hydrochlorate of morphia dissolved in a strong infusion of coffee. The attacks occurred especially on any exposure of the head to cold air, and had resisted the operation of each of these remedies separately. It ceased almost immediately after taking them in combination, and by repeating the dose on each recurrence of the pain, the attacks became less frequent, and at length disappeared. M. Boileau says that he has found it successful in many other instances.

RHEUMATISM—*Veratrine*.—Dr. Aliès relates several cases of rheumatic affections in which he has rapidly effected a cure by the use of veratrine, in doses of five milligrammes every five or six hours.

SCIATICA.—Dr. Blakiston has treated eighty-three cases of the uncomplicated disease without a failure by the endermic application of morphia. A blister the size of a crown piece is used over the chief seat of pain, and a grain of acetate of morphia daily sprinkled on the denuded surface, which is prevented from healing, if necessary, by savine or cantharides cerate. Should the knee become painful, the same plan is adopted at the ham.

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PROLAPSUS OF THE CORD; PLACENTA PRÆVIA, ETC.

By D. WARREN BRICKELL, M. D.

October 2nd, 1856, I was called to see Mrs. M. V.—stout and healthy woman, æt. about 26 years. Found her in labor with her fourth child. Four years ago she was delivered of a dead seven months child. Seven months thereafter, she aborted at $2\frac{1}{2}$ months; and about one year ago she was delivered of a full term child, which, she was informed by the doctors who attended her, died only a few minutes before birth, they being under the necessity of opening the head to effect delivery. She was not told what the nature of the difficulty was, but knows that she was bleeding freely for several hours before the physicians were called in by the old midwife in attendance. When they examined her, she recollects hearing them say that she “must be delivered forthwith, or she would inevitably die, as the last blood was flowing from her heart.” After this she became insensible, and did not revive until several hours afterwards.

Two or three months ago, my friend, Dr. Fenner, saw the patient, and observed that she was very large indeed, the womb appearing to be overburthened with liquor amnii. As she advanced in pregnancy she became more and more distressed and oppressed by the distension of the womb, and at last her feet and legs became dropsical. Her general health, however, continued good. She desired Dr. F. to attend her in her approaching accouchement; but in consideration of the disappointments and dangers she had previously sustained, and apprehending some trouble in the present instance, he did me the honor to advise my services.

I visited the patient on the 2nd October, at 9 A. M., in company with Dr. F. Her condition was as follows: She had been in labor all night—

suffering the usual degree of pain peculiar to the first stage, and at 7½ A. M. the membranes broke, and the liquor amnii was discharged. The midwife said the amount of water discharged was almost incredible—that she had never seen so much in the course of a long and very extensive experience. The patient was sure she had passed a half barrel, though of course her idea was much exaggerated. After the discharge she experienced great relief, but the uterine contractions had now entirely ceased. The midwife thought she had detected the cord presenting.

I passed one finger into the vagina, but could not reach the os uteri. Three fingers were passed, but with like unsatisfactory result. The ostium and canal of the vagina being perfectly dilatable and well lubricated, I passed my whole hand in, when it came in contact with several loops of the cord in advance of the head—the latter being entirely above the superior strait. The presence of the hand did not excite uterine contractions, and on withdrawing it, we observed that it was decidedly tinged with blood.

Under these circumstances we determined to give the patient moderate doses of ergot and brandy, to arouse the energies of the uterus, and to be ready for any emergency. At 9½, A. M. I gave her two drachms of wine of ergot in a little brandy and water. In twenty minutes there was a fair uterine contraction, accompanied by sharp pain and bearing down. In five minutes this recurred, and during its presence I passed the hand into the vagina. As soon as the womb relaxed, I seized the loops of the cord in my fingers, and placed them entirely above the head. On withdrawing my hand, it was again found considerably tinged with bright blood, and I became satisfied that there was partial placenta prævia. The pains now recurred regularly, and from time to time I would pass my fingers to search for the cord. At 11 o'clock I found it again prolapsed, and its pulsations irregular. Again I replaced it above the head, and this time the withdrawal of the hand was attended by quite a little stream of bright blood, which soon ceased. All this time the patient had lain on her back, and the head of the child had not yet entered the superior strait. After a great deal of persuasion she was induced to lie on the left side, and I soon found that the head was disposed to enter the pelvis. I applied my ear to the uterus every few minutes, as a means of appreciating any impediment to the fetal circulation. At 12½ o'clock I found that the pulsations were slow and irregular. I passed my hand into the vagina, and found the cord at the vulva, and nearly pulseless. Without a moment's

delay, I carried it up again, and pushing up the head during the absence of pain, I readily succeeded in throwing the loops entirely over the occiput. In withdrawing the hand I now pulled the occiput down, placing the chin on the breast, and leaving the head in the fairest position for passing through the pelvis. The next pain pressed the head through the superior strait, and I had the satisfaction of finding by auscultation, that the heart of the child was again beating regularly and strongly. At 1, P. M. the patient gave birth to a fine living boy; and in five minutes thereafter, the placenta was extruded, there being quite a free gush of blood just after it. The uterus contracted pretty well, however, and all appeared to be well.

I turned my attention to the child, to see that the navel was properly dressed, when one of the attendants called to me, and on reaching the bedside I could distinctly hear the blood gurgling from the vagina of my patient. She was in a hard rigor, and nearly pulseless. I applied cold to the abdomen, took the pillows from under the head, gave ergot; indeed I brought to bear every means at command, and began to think death inevitable, when I determined to test the internal application of ice—a remedy which I had before found most efficient. I thrust a large and smooth lump up to and even within the os uteri. As if by magic the uterus clasped it, and I immediately withdrew it. From this moment hemorrhage ceased, and the patient was properly bandaged and arranged in bed.

The patient had no further hemorrhage, but suffered greatly from after-pains. On the second morning after delivery she had considerable fever and some abdominal tenderness, and my apprehensions were somewhat excited, but these symptoms readily yielded to appropriate treatment, and she is now well.

Prolapsus of the cord is fraught with little, if any, danger to the mother, and if the accoucheur consulted her safety alone, he would not interfere in the case at all. But it is far different as regards the child. Here the danger of the extinction of life is imminent, and time is precious indeed. By reference to statistical records, we find that, in an aggregate of 98,512 cases of labor occurring in England, France and Germany, 401 cases of prolapsed cord were found, or about 1 in 245½; and that of 355 of these cases, 220 children were born dead, or nearly 62 per cent. This mortality impresses us at once with the great importance of the subject, and bespeaks a very unsatisfactory condition of things as to the proper plan of treatment in such cases.

Amongst the more recent authors we find four different methods of treatment. In the words of Ramsbotham:—"Carrying the prolapsed cord to that part of the pelvis where there is most room, and where it will be most out of the way of pressure,—turning the child, and delivering by the feet; returning the funis within the uterus, and keeping it above the presenting part until the fœtus is partly in the world; and delivering by the forceps as early as practicable." I will not here attempt to analyze these different modes of treatment *in extenso*, as the subject is difficult of exhaustion. I can only offer the results of my own experience, and such conclusions as are based on the same. How happy is the doctrine set forth by Bandelocque!—viz: "Il ne faut rien entreprendre dans ces sortes de cas, avant qu'on n'ait bien examiné la marche de la nature et les effets qu'éprouve le cordon ombilical; car souvent après l'issue des eaux qui l'ont entraîné, l'expulsion de l'enfant est plus prompte que ne le serait son extraction; et en suivant le précepte donné trop généralement, en ajouteroit au danger qui est quelquefois inséparable de l'action de retourner et d'amener cet enfant par les pieds, celui d'une plus longue compression du cordon."

Here is the evidence of a master mind, a man who pinned his face to no one's sleeve; and while he was conversant with the opinions of all authors, and knew all the rules laid down, still asserted a right and the propriety of watching the course of nature in each case that presented itself, and adapting his remedial measures to the particular circumstances that might present themselves. Unlike some other authors, in the hurry to suggest a remedy, he did not forget that version by the feet, one of the commonest remedies recommended for prolapsus of the cord, was itself fraught with imminent danger to the child, and no little danger to the woman. I have now met with six cases of presentation of the cord; in every case I have unhesitatingly introduced the whole hand and thrown the prolapsed portion of the funis above the head; and all the children have been born alive. Of course I do not mention cases to which I have been called, and have found the funis hanging without the vulva, cold and pulseless, and the child, of course, irretrievably lost. I have never yet seen any true indication for turning by the feet in such cases; on the contrary, it has always appeared to me that when the hand has been introduced for such a purpose, it is strange indeed that it has not occurred to the operator, that in this same hand he could have carried the cord and placed it in a safe position. As to the plan of placing the prolapsed por-

tion of the cord in some corner of the pelvis where it would not be pressed on during the passage of the head, I have never yet tried it, and simply because I would not know where to find that precise location; for, as Dr. Robert Lee says, the os uteri has no angles corresponding to those of the pelvis. The leathern purse of MacKensie, and similar contrivances of various authors, I have tried to some extent, but never with any good result.

Mauriceau was more successful than other men in cases of prolapsed funis. He reports 33 cases, in 19 of which he resorted to version by the feet, and 18 of these children were born alive. On the other hand, Gifford reports 21 cases, in nearly all of which turning was resorted to, and 17 children were born dead. In fact, the weight of authority is every day increasing against the operation of version in such cases. In this connection we have only reminded the reader of the danger to the child in this operation, but he must, by no means, forget that the operation is also a very serious one as regards the mother—far more so than the simple introduction of the hand for the reposition of the funis.

In the case before us, the reasons for adopting the plan of treatment mentioned, are as follows: 1st. The waters were already evacuated, and the operation of version, therefore, rendered more difficult and more dangerous than it would otherwise have been. 2d. The head presented in the best manner, the pelvis was ample, and the soft parts all perfectly dilatable and well covered with mucus. 3d. Until 12½ o'clock, or three hours after the first examination, there was no evidence of dangerous pressure on the cord, and even then its reposition, although not effected without some trouble, was found to be feasible. It may be said by the advocates of the operation of turning, that the existence of partial placenta prævia was a strong indication for performing the operation; but here, again, I must beg leave to urge the propriety of vigilant neutrality on my part. This is, by no means, the first case in which I have seen a safe delivery accomplished where partial placenta prævia existed, and where there was no interference on the part of the accoucheur. In cases where merely an edge of the placenta is detached, and where the amount of hemorrhage is such as not at all to endanger the life of either mother or child, I can see no excuse for so rude an alternative as version necessarily is; at least experience proves to us that such cases are rarely dangerous, all other things being favorable.

In my intercourse with medical men I have heard the application of

ice to the os uteri, in cases of dangerous flooding, condemned as rash, unnecessary, and unsafe ; but such condemnation has only been expressed by those who have never used it. I can only say, that I have now resorted to the remedy four times—in every instance successfully—and so prompt has been the relief, that I cannot help regarding it as a true sheet anchor in such cases. I have never been able to theorise myself into the belief of its dangerous tendencies. It is altogether probable that the continued application of ice to the os or internal surface of the uterus, would be productive of serious consequences, but not so with its transient application. We apply ice to the abdomen to arouse the dormant energies of the uterus ; in ordinary cases the susceptibility of the uterus to impressions directed through the sentient nerves of the skin, is active, and the organ contracts ; but in another case, the skin will not serve as a medium of impression, the peril is imminent, and the organ must be reached more directly ; there is no time for waiting on ergot, brandy, etc.; the stimulus of the bare hand in the uterine cavity is not sufficient ; but a lump of ice carried quickly to or within the os, and in a moment withdrawn, will meet the indication and save life. So far from apprehending danger from its use, I have seen such prompt relief afforded, that I should henceforward be more inclined to rely on the application of ice to the *vagina*, than to the abdomen, in ordinary cases of hemorrhage.

It is a great pity that we have not more ample statistical data on this important subject, in our own country. It would certainly be both interesting and profitable to compare the results of American with foreign practice. I must confess, however, that I was very much surprised by a piece of information furnished me by the old midwife in attendance on the case just detailed. She is a very intelligent old woman, and has had a very extensive experience in this city for many years, and, happily, differs from most of her sisterhood, in being ready to acknowledge that she does not know *everything* connected with obstetrics. She expressed great surprise that the child should be born alive—having even laughed at me when I suggested that it would be—and assured me that it was the first case of the kind she had ever seen ; that she had met with the complication often, with and without physicians in attendance, but that the children invariably perished.

CASES FROM THE CHARITY HOSPITAL.

By I. L. CRAWCOUR, Visiting Physician to the Charity Hospital, Professor of Chemistry and Medical Jurisprudence, New Orleans School of Medicine, &c., &c.

I am indebted to my very intelligent Clinical Student, Mr. Williams, for the reports of the following cases, which I think will be found to be of interest :—

CASE I.—*Abscess of the Liver — Operation — Recovery.* — James McGregor, aet. 24, was admitted on the 15th of September; had been in the hospital previously for intermittent fever. On the 6th of July last, while at Biloxi, was sun struck, from the effects of which he was sick six weeks. A few days after the attack he felt pain over the region of the liver, which has continued with varying intensity up to the present time. He is now much emaciated, and apparently worn down by disease. Countenance icteric and expressive of suffering, lips pallid, pulse feeble, appetite bad, bowels somewhat loose. On examination, the thoracic organs were healthy, the abdomen somewhat tympanitic and its veins swollen. In the right Hypochondrium is a large and distinctly fluctuating tumor. From its situation, and the appearance of the patient, I diagnosed abscess of the liver.

The patient was evidently sinking, and as from the want of constitutional power, no chance existed for absorption, I determined to open the abscess, and that without delay. From its appearance, I was led to believe that adhesions had formed, and even had they not, I should still have punctured, as his situation could not have been rendered worse than it was at the time of seeing him. I ordered,

R	Acidi Nitro. Muriatici.....	℥xxx,	
	Quinæ Disulphatis.....	grs. xxx,	
	Aquæ Camphoræ.....	℥vi.	℥

Two table spoonfuls to be taken three times daily. Gin and strong beef tea.

September 16th.—The patient being in no respect better, and complaining of intense pain, I determined to operate to-day. A vertical incision three inches in length was made through the integuments and muscles immediately below the tenth rib, near its junction with the cartilage. On introducing the finger into the opening, a hard fluctuating tumor was felt, this was incised to the same extent as the external wound. Pus flowed immediately. A flexible catheter being then introduced penetrated to a depth of six inches, the pus flowing freely through it and by its side, the quantity discharged being upwards of a quart. A flax-seed poultice,

moistened with Labarraques solution of chloride of soda was ordered, to be changed every three hours. Diet to be strong beef tea, and to have a pint and a half of Scotch ale during the day.

Noon.—The patient was feeling comfortable, pulse 95.

Night.—Complains of pain over the whole abdomen. Mr. Williams prescribed—

R Hydrarg. Chlorid Mit.....grs. xii.
Opil. Pulv.....grs. iii.

Divide into six powders. One to be given every hour. Also Syrup of Morphine ʒss. at bed time.

18th.—Pain in the abdomen ceased, feels well. The abscess still discharges freely; was washed out with a dilute solution of chloride of soda by means of a double catheter, and the wound was dressed with the following ointment, which was ordered to be also spread over the abdomen:

R Unguent. Hydrarg. fort.....ʒi,
“ Belladounæ.....ʒss. ℥

And the patient was ordered to take—

R Massæ Hydrarg.
Pulv. Opil aa grs. vi.

Divide into six pills. One three times daily.

20th.—Patient rested well. Tongue clean. Pulse 89. Abscess still discharges freely.

21st.—Abscess was again washed out with the solution of chloride of soda, and half an ounce of the compound tincture of iodine diluted with an equal quantity of water injected. Ordered—

Acidi Nitro. Muriatici.....ʒi,
Quinæ Disuphat.....ʒi,
Tinct. Lyttæ.....ʒii,
Infus. Cinchonæ.....ʒxii. ℥

Two table spoonsfull three times daily. Continue pills. Chicken, eggs and ale as before.

24th.—Patient complains of diarrhœa. Pus still flows from the wound, though in small quantity. Ordered—

Pulv. Opil.....grs. v,
Acidi. Gallici.....grs. x v.

Make six pills, one three times daily.

R Decocti Hæmaloxylon.....ʒvi,
Tinct. opil.....ʒss. ℥

Fac Enema

28th.—Complains of inability to sleep. Wound nearly closed. Ordered,

Chloroformyl.....	ʒi,
Lupulinae	ʒii,
Quinine disulph.....	ʒi.
Mucilage.....	ʒvi.

Oct. 1st.—Improving. Appetite good.

5th.—Still improving. Ordered—

Syrupi FerriIodid.....	ʒi
Potassii Iodidi.....	grs. iii,
Aquæ Camph.....	ʒi.

To be taken three times daily. Full diet and porter.

10th.—Patient well. Wound closed.

12th.—Patient walking about the ward, will probably leave the Hospital in a few days.

20th.—Patient feeling perfectly well, has left the hospital.

It has been stated by some eminent pathologists, Cruveilhier among others, that abscesses sometime form in the liver from injuries to the brain, and are the result of a specific irritation. The case under consideration is a remarkable verification of this observation, for we have a distinct history of brain affection, as instanced in the sun stroke at Biloxi, under which he suffered for six weeks before the appearance of the abscess. It is a disputed point among practitioners, whether hepatic abscesses should be opened, or be left to the natural process of absorption or evacuation, but as I conceive a large purulent collection to be a foreign body, I considered it my duty to relieve my patient from it at as early a period as possible. I can imagine no reason why we should be so anxious to disperse abscesses in unimportant parts of the body, and treat them with such extreme tenderness, when they invade the most important structures of the organism.

The opening of hepatic swellings, however it may have fallen in disuse among the moderns, was commonly employed by the ancient practitioners, for Hippocrates, in his forty-fifth aphorism, states “that if an abscess of the liver be opened by the cautery or the knife, and the pus is white and freely flowing, the patient will recover, if it be of the appearance of oil he will die.” In the case under consideration, the patient was rapidly sinking from the effects of the disease, and a few days would undoubtedly have terminated his career; there certainly was the chance of the abscess discharging spontaneously, but in all probability its contents would have been evacuated into the cavity of the peritoneum. It may be objected

that I opened without being certain of the existence of adhesions; to this I answer, that not only are the signs of adhesion very fallacious, but, even had I been positively certain that none had formed in this case, I should still have adopted the same course, feeling assured that it was the only one that gave any chance of life to my patient. The redness of external surface considered by some practitioners pathognomonic of adhesion, did not exist in this case, although subsequent observation after the operation gave evidence of its presence; had I been guided solely by this sign, the operation could not have been performed. Dr. Thomson states, "In taking a review of the cases in which hepatic abscesses have been artificially opened we find little question on the part of those who relate them, to the question, whether or not there existed previous to the operation, adhesions between the surface of the abscess and the abdominal parietes. Notwithstanding the apparent inattention to this point, there is no evidence of the contents of the abscess having in any of these cases escaped subsequently to the operation into the cavity of the abdomen." Dr. Clark, of Dominica, mentions expressly that in one of his cases, the liver did not at the time of the operation, adhere to the peritoneum as usual, in consequence of which, after several fruitless attempts to get the orifice in the liver to correspond with that in the abdomen he was obliged to make a second incision in the liver nearly an inch deep before he reached the abscess. Six days later, he found that the liver adhered to the peritoneum all round the orifice. Dr. Murray, of the Cape of Good Hope, states that he has opened many hepatic abscesses where no adhesion existed, and in a great many instances the patients recovered, and in none did any matter escape into the peritoneal cavity. "The escape of matter is prevented by the constant apposition of the viscera in all their parts." Where time allows and it may be considered advisable to endeavor to procure adhesions, the plan proposed by Dr. Graves should be followed. It consists in cutting through the integuments and part of the muscles over the situation of the tumor, and then plugging the wound with lint. By this means not only is the matter solicited to a certain point, but adhesions assuredly form, in consequence of the inflammatory action excited. I preferred making an incision in the mode described in the report to using the trocar, for two reasons, firstly—the wound made by the trocar is to a great extent a contused one; and secondly, the opening can never be sufficiently large to permit the free evacuation of the contents of a large abscess. In all

cases, our object should be to empty the sac as speedily as possible, and with this view I made the wound as large as I could with safety, and favored the removal of the matter, by a copious washing with warm water. I consider that the mortality in nearly all cases of hepatic abscess is due either to the opening being too small, or to the operation being delayed till the patient's strength is exhausted. With a view to favor cicatrisation, I injected a solution of tincture of iodine; it produced no pain or unfavorable symptom, and on the whole I think was attended with benefit. My plan of treatment was mainly based upon what I had seen so successfully tried by Dr. G. Owen Rees, during the time I was his clinical student at Guy's Hospital. In removing a large hydatid or rather series of hydatids from the liver, the patient was sustained the whole time of convalescence, by a tonic and rather stimulating diet. The patient, whose case lasted four months, made a good recovery. In the present instance, I applied mercury and belladonna locally to allay pain, and prevent if possible the chance of peritonitis. For some time McGregor suffered from insomnia, and as all preparations of opium produced a deleterious effect upon him, I employed a combination I have usually found successful, viz., chloroform and Lupulin in the doses indicated. He is now strong and healthy, and the wound is closed, it occasionally presented a few fungous granulations, which were repressed by the use of caustic.

CASE II.—Francis V. McKee, aged 51—a native of Indiana—admitted September 20th.

A small man of fair complexion, blue eyes and light hair; has been a druggist and book-keeper. The patient, who is a very well educated and intelligent man, detailed his case in a very lucid manner. He states that, some five months ago, he tripped and fell on the pavement, striking and cutting the top of his head. He became unconscious for some time. He experienced pain in the occiput, extending over the vertex as far as the superciliary ridges. Two weeks after the accident, was seized with a nervous tremor in the hands, which unfitted him for writing. His memory became very defective, and his bowels much constipated, according to his own words, only having two passages in as many months. He is now very anæmic and emaciated—gait tottering, hands very tremulous—so much so that he can scarcely guide a pen—pulse small.

Ordered :—Full diet and porter.

14th. The Galvanic moxa was applied to the back of the neck, and he was ordered :

R	Tinct. Phosphori,.....	ʒii.	
	Tinct. Cinchonæ,.....	ʒiiss.	
	Aquæ,.....	ʒivss.	℥

A table spoonful three times daily.

15th. Patient complains of a tingling sensation at each pole of the moxa.

16th. Still complains of the tingling—says he is not so nervous—bowels act regularly.

17th. Patient now has no pain in the head. Memory better. Occasionally has a slight tingling sensation at the back of the neck.

19th. Still improving. Ordered :

	Tinct. Phosphori,.....	ʒi.	
	Ferri Phosphatis,.....	ʒi.	
	Mucilag,.....	ʒvi.	℥

Table spoonful three times daily.

23d. Reversed the poles of the moxa. Patient improving.

28th. Patient nearly well—hands nearly steady.

Oct. 3. Patient says his hands now are quite steady. Can write as well as ever. Bowels act regularly. Complexion improved.

13th. Will leave the hospital to-morrow.

CASE III.—D. Dunn—admitted August 9th—native of Ireland—æt. 28—fair complexion, dark hair and eyes.

Last November, while at Mississippi, was thrown from a buggy on his head—was taken up speechless, in which condition he remained eight days—was partially insane for the following three weeks. Patient is now excessively nervous—memory very deficient. Has vertigo, occasional loss of sight—is excessively pale—eyes sunken—features attenuated, and generally emaciated.

All the viscera healthy—pulse slow and feeble—bowels open. I gave him the usual routine treatment of mercurials, nux vomica, tonics, etc., without any benefit, and I determined to try the effect of phosphorus.

Sept. 2d, ordered :

R	Tinct. Phosphori,.....	ʒii.	
	Tinct. Cardamomi,.....	ʒii.	
	Aq. Cinnamomi,.....	ʒiv.	℥

Table spoonful three times daily.

13th. Patient much improved.

Tinct. Phosphori,..... \bar{z} iii.

Freri Phosphatis,..... \bar{z} i.

Mucilag,..... \bar{z} vi.

Table spoonful three times daily.

18th. Patient's sight now is as good as ever. Nearly recovered—no pain of head.

25th. Patient much better. Had a slight attack of intermittent fever, which was arrested by the haustus quinae of the house.

30th. Patient is much better. No pains in the head—memory nearly restored. Gaining strength daily.

Oct. 13th. Patient has been steadily continuing with the phosphorus and phosphate of iron. Says he is as well as ever, and will leave the hospital in a few days.

These two cases are chiefly interesting from the fact of their recovery under a remedy not hitherto devoted to the treatment of cerebral affections. The disease in both was obscure; but there seemed undoubtedly a tendency to softening. In the case of Dunn, the whole round of remedies had been gone through and exhausted, without any benefit. The phosphorus suggested itself to me as being possibly of advantage, by virtue of its natural affinity to the brain—the nervous tissues being composed mainly of a phosphorised oil, and containing upwards of one per cent. of phosphorus. I considered that there might be a deficiency of phosphorus in the brain tissues, and an inability to assimilate from the food. I therefore exhibited it, in solution, and was astonished and gratified at the benefit resulting. The improvement may have been accidental, and we can hardly predicate much from two cases; but I considered it necessary to give publicity to the treatment, in order that its merits, if any, may be the more fully tested. The solution is made by dissolving phosphorus in anhydrous alcohol—which will take up about two grains to the ounce. Of this from twenty to sixty drops may be given three times daily, either in water, or in some aromatic infusion. The remedy in this mode of exhibition, is free from all danger, and its taste is hardly objectionable. In the case of McKee, in addition to the phosphorus, I employed the galvanic moxa, a remedy whose powers are, in this country, hardly known or appreciated. I believe I was the first individual who introduced it at the Charity Hospital, and it is as simple as it is efficient. It consists simply of a thin disk of silver, and one of zinc, united by a silver wire. The skin

should be denuded by means of two small blisters, and the poles of the moxa, slightly moistened with salt water, should be placed over the abraded surfaces. A slight tingling is rapidly felt, extending from the zinc to the silver pole, and a deep eschar takes place under the zinc, resulting from the decomposition of the natural secretion of the skin, and the consequent and continuous formation of chloride of zinc. The ulcer thus produced may, if required, be rapidly healed by simply reversing the poles. We have, in this little apparatus, two modes of counter-irritation, both exerting an action at the same time, viz: the galvanic current, constantly traveling from one pole to the other, and the chemical action resulting from the chloride of zinc. In the treatment of obscure neuralgias and of old ulcers, which have resisted all other remedies, I have seen it produce almost miraculous effects. It was introduced to the profession by the late Dr. Galdiug Bird, and was a very efficient therapeutic agent in his hands. One of its advantages consists in its simplicity, as a piece of silver and zinc foil constitute an active and powerful apparatus.

IRREDUCIBLE INGUINAL HERNIA, STRANGULATED, HERNIOTOMY—DEATH FROM PHLEBITIS.

REPORTED BY M. SCHUPPERT, M.D.

J. B., aged 28 years, of a muscular constitution, but rather sickly, had just recovered from an attack of intermittent fever, complained on rising from bed on the 6th of September last, of eructation with pain in the abdomen, extending down to the left scrotal region. Not aware of the nature of his complaint, he sought relief in some reputed infallible bitters, but without good result. While trying to reduce an old hernia with which he had been affected for some fifteen years he suffered much pain, and was induced to call upon me about nine o'clock of the same morning. On examination, I found an inguinal hernia of the left side, about four inches in length by two in breadth, and occupying about two-thirds of the scrotum. The swelling, of a cylindrical form, was so tense, that hardly any impression could be made upon it by the fingers.

The appearance and history of the hernia, left but little doubt on my mind that I had to do with an entero-epiplocele, and that there was little hope of effecting reduction without resort to the knife. The taxis was,

however, tried, but the tumor remained unchanged, although the patient was put under the use of chloroform, while the warm bath and venesection were freely used. Nothing now remained but an operation, which I performed, assisted by Drs. Brickell and Berthelot.

The patient was placed in the recumbent position upon a table, and while under the influence of chloroform, an incision was made extending over the whole length of the swelling, in the direction of a line drawn from the left shoulder. The superficial fascia, and cremaster muscle, whose fibres could be distinctly recognized, were next cut, and lastly, some layers of cellular tissue, the immediate coverings of the sac, were divided in the direction of the first incision, by means of the bistoury and grooved director. The hernial sac was now brought into view, and presented the appearance of a long figure 8; a portion of the sac was pinched up and removed by a horizontal cut, when a part of the omental contents of the sac protruded through the opening. This opening was now enlarged by dividing the sac throughout its whole extent, a small quantity of yellowish serum escaping. The omentum contained in the upper portion of the sac was congested, partially adherent to its walls, but otherwise healthy. The adhesions were divided by the bistoury. The lower portion of the sac forming the under part of the figure 8, but slightly connected with the upper part, was found considerably hardened and wholly changed in structure; this part was removed with the knife.

After the omentum had been separated from its adhesions with the sac as stated above, a part of the ilium, about two inches in length, was discovered situated in the middle of, and entirely surrounded by the omentum. The gut was inflamed and of a purplish color. The superior aperture of the sac could be traced upwards with the knife obliquely outwards to the external inguinal ring, into which I was able to introduce the point of the finger for about one-eighth of an inch when the stricture could be felt. A curved probed pointed bistoury with a short cutting edge, was now passed along the palmar side of the finger, the nail of which was turned towards the gut, then carried beneath the constriction; by turning the edge of the knife upwards, the constriction was divided in a direction parallel with the linea alba. The finger could now be pushed throughout the whole length of the inguinal canal and no obstacle presenting itself, the intestine unadherent to the sac, free from fecal matter, but slightly distended with gas, was returned to its proper cavity. The upper part of the omentum likewise free from adhesions, was also returned.

The sac was now loosely filled with charpie, and the whole wound covered by a linen compress, fastened by strips of adhesive plaster. No bleeding of any importance occurred. During the operation the external pudendal artery was divided and ligated. While still under the influence of chloroform, the patient was carried to bed, laid on his back with his thighs bent, allowing room for the bed pan without disturbing him. A mixture of *ol ricini* $\bar{5}$ iss, and *aq. lauro cerasi* $\bar{3}$ iii was prescribed.

The operation was performed at 10 o'clock. At 12 o'clock, when I next saw my patient, I found his pulse soft, and about 100 beats; at 8 o'clock the pulse had increased to 120 beats; he had had four passages, his abdomen was soft, there was no manifestation of pain on pressure, but he complained of heat. At my visit the next morning, at seven o'clock, I found my patient had passed a very restless night, he complained of great thirst, pulse 120 beats and intermittent, skin hot and dry, and his breast and abdomen presented a spotted appearance, the spots being of a violet color and disappearing upon pressure. There was subsultus tendinum, hiccup, etc., in short, I found what I did not expect, the tempest in full blast, portending speedy dissolution. The secretions of urine had nearly ceased, the catheter removing only a small quantity of a high color, during an inspiration.

At nine o'clock the ecchymosis had extended over the whole surface of the body, the skin was very hot and red; the eyes dull, pupil contracted. There was also delirium, with constant desire to rise from the bed, great oppression on the chest. At 12, noon, the patient died. No post mortem examination was permitted, but I have no doubt that death was the result of suppurative phlebitis.

The quickness with which this inflammatory process was carried to a fatal termination, and the rapidity which the typhoid symptoms set in, led to the supposition of a copious admixture of pus with the blood, and the formation of purulent deposits. The patient was a working hand in a liquor store, and had lifted a heavy barrel the day previous. On going to bed he removed his truss, without being aware of any hernial prolapse. The protrusion and strangulation must therefore have occurred at night time while he was asleep. This may be regarded as strange, yet it is not the only case on record in which protrusion, followed by strangulation, has occurred at night time. In the last September number of the *London Lancet*, W. Tyrell enumerates two similar cases, men affected with old hernia where the truss was worn not to perfect a radical cure, but only

for safety. These should never be allowed to dispense with it even at night. "No subordinate advantage ought to interfere with the most important one of security."

We intend in the following lines, to advance some general remarks on the treatment of inguinal hernia, in connection with the history of our case.

Of all diseases of the human race which come within the domain of operative medicine, there is none which claims such a combination of anatomical knowledge and surgical skill as hernia in all its various forms. When after the brilliant researches and experience of Cooper, Hesselbach, Pott, Scarpa, Richter, etc., we to-day see so much error, we may absolve ourselves, when we sometimes have recourse to already established doctrines. Truth can not be repeated too often, especially at a time when the prostituted maid Reputation can be gained by less than true merit.

1st. As to the Anatomy of Hernia.—In Cooper's classic description of the anatomical parts concerned in inguinal hernia, we meet with a view which we cannot concur in, but which we find accepted by most all authors writing on descriptive anatomy, and to which we should first direct the attention of our readers. A. Cooper, speaking of the fascia which is situated between the tendons of the internal oblique and transversalis and the peritoneum, and to which he has given the name of fascia transversalis, states that the fascia was *firmly attached to the peritoneum*.

This we must positively contradict. In all cases we can remember, we found between the fascia transversalis and the peritoneum a subserous membrane, often differing in thickness but always loosely attached to the peritoneum and easily separable into different layers. While the fascia transversalis is found to terminate in the crural arch, this cellular tissue descends behind the crural arch, forming the sheath for the crural vessels and including in its cellular strata the epigastric artery and vein. The different attachments and distribution of this extensible subserous membrane, and the ease with which it can be detached from the peritoneum are peculiarities which allow us to ligate the crural artery within the *cavitas pelvi*, and to perform the *sectio caesarea* without opening the *cavum abdominale*, and may justify us, when we consider it to be distinguished entirely from the fascia transversalis.

If we look upon this subserous membrane, and the cremaster muscle, both varying not only in thickness, but in the degree of attachment to the peritoneal sac, we will easily comprehend how surgeons, at a superficial

view, should have advanced the idea, that the peritoneum of the sac is sometimes found unusually thickened.

"When surgeons speak," says Scarpa, "of a hernial sac in proportion to the magnitude and duration of the hernia, their language is not at all correct; for, in fact, the peritoneal investment of the hernia is seldom or never thus altered. I can declare, after numerous observations, that in the majority of cases, the hernial sac, strictly so called, is not perceptibly thickened, and that in general, it does not differ from other parts of the peritoneum, however large and old the scrotal hernia may be."

Concerning the question of the cause of the thickness of the hernial sac, we have met with a very singular idea of Sir A. Cooper. In his valuable work on hernia, he says: "The peritoneum, in forming a hernial sac, is usually not only lengthened, but slightly thickened; for a long combined pressure of moderate force will produce an elongation and thickening of the fibre, though a greater degree will bring about an entire absorption of parts." In supporting this puzzling idea, Cooper brought forward two examples, most unfortunately selected. "This is proved," says Cooper, "in the first case, by the vast increase of size and thickness which the tunica vaginalis undergoes in an old hydrocele; and, in the second, by the entire removal of the sternum and cartilages of the ribs in aneurisms."

Now, there exists no other similarity between an aneurism and a hydrocele, than what is to be found in the fact that they are both pathological conditions. The difference in the degree of pressure which may be exerted in a hydrocele and an aneurism, is an unknown factor; but, admitting for a moment, that the hypothesis of Cooper be correct, we should conclude that the tunica vaginalis of an old hydrocele ought to be rather thinner than thicker, and that, in the beginning, an aneurism would have to thicken a bone before it would produce its absorption. In all those cases where, in the course of time, more intestine is protruded without being accompanied with a corresponding new quantity of the peritoneum, the sac will never appear thickened; on the contrary, the peritoneal sac, in consequence of the extension by the newly-protruded portions of intestine, will be found more thinned; and there are cases on record, where, by a continual extension, the sac was lacerated, so that no sac could be recognised in performing the operation.

2nd. Regarding the taxis and operation, in the treatment of hernia.—To avoid the bloody operation, the most ridiculous propositions have been advanced. It is not to be denied that, by unreasonable application of the

taxis, the rational treatment of hernia has been indirectly advanced. Yet we are compelled to regard with distrust, unconditional laudations of this method.

The best method to effect the taxis, as will clearly be understood by a trial upon the cadaver, is to place the subject in such a posture as to grant the greatest possible relaxation of the abdominal muscles and apertures, which condition is to be obtained by elevating the thighs to a right angle with the body, and rolling them outwards. However simple and effectual this process may be, there is scarcely any surgical journal, but indulges in the propagation of some new dogma, having nothing but its novelty, and sometimes its absurdity, to recommend it.

The taxis, when employed by a skillful hand, and in cases where no symptoms prevail contra-indicating its employment, will often prove successful; but a long continued succession of violent attempts, will surely counterbalance the good that may be derived from it. It is astonishing that a man like Amussat should advocate the principle, that every hernia is to be manipulated until the reduction is effected, and that when the surgeon be worn out, his assistant must renew the attack!

When Erickson, in relation to the statement of Luke, that out of 243 cases of hernia, having been reduced by the taxis, in the London Hospital, none died, feels himself justified in supporting the doctrine, that only in cases where gangrene has set in, should the taxis be avoided, we cannot but consider him as ignorant of the doctrines and experience of our greatest surgeons. Statistical facts of this sort are of no value whatever, and with them alone as a basis, to advance such pernicious doctrine, is highly censurable.

One and the same species of hernia may demand, according to the different stages of its progress, a different treatment. Measures used with advantage on the one hand, may become dangerous and pernicious on the other. Cases in which the nature of the incarceration has not been correctly recognised, have often proved fatal; and there is no greater mistake than to consider a small hernia of small, and a greater one of great, importance, while quite the reverse comes nearer the truth. When in cases of incarceration, medical men who are in favor of an unrestricted resort to taxis, are inclined to blame surgeons for their being always ready to operate, we may be allowed to remark, that in urgent cases, the friends of *squeezing* are advocating the most dangerous principle.

If there be in surgery, any occasion requiring prompt action, it is deci-

dedly to be found in a case of strangulated hernia. Whoever, in such urgent cases as these, wastes time, is not fit to undertake the cure of a rapid disease, in which, as Pott truly remarks, "if we do not go forward, we generally go backward, and whatever does no good, if it be at all depended upon, certainly does harm, by occasioning an irretrievable loss of time."

There is, indeed, no true criterion, indicating the period to which the operation could be safely delayed, and there exists the greatest variety in the length of time that may elapse between the first symptoms of strangulation and a fatal termination. Let the reflecting and experienced surgeon act according to circumstances; but, as a general rule, we would suggest, that in cases of hernia, free from any inflammatory character, when there is a hope of reduction by the taxis, the operation should only be resorted to after the taxis had been tried without success, and before the symptoms of inflammation be already established; that in cases of enlarged old torpid hernia, of a chronic incarceration, the operation should not be undertaken at all; and in cases of hernia which, from the beginning, are accompanied by very violent symptoms, severe pains and vomiting, the operation ought not to be delayed, but performed immediately. With these principles, we are convinced, the great majority of experienced surgeons will agree.

While discussing the operation for strangulated hernia we cannot but revert to a method which has been already employed by Paré, afterwards recommended by Petit, and received by Key and Luke. This method, consisting in not opening the peritoneal investment of a strangulated hernia, generally in vogue at the present day, we will put to the test of an unprejudiced consideration, and probably arrive at the conclusion, that, as we have been compelled to condemn, most peremptorily, an unrestricted trial of the taxis, so we can allow this method but a very limited application, including almost the extremes of new and small hernia on the one hand, and old and large ones on the other. In cases of old and large scrotal hernia, all that has been said in favor of the method of operating without opening the sac, will manifestly be acknowledged as true, because the operation, in the majority of cases on record, has proved fatal, a circumstance which will be accounted for by considering the difficulty met with in reducing so large a quantity of the intestinal tractus.

The principal arguments advanced in favor of the method of not opening the peritoneal sac, consist in the following:

1. The lesion of the peritoneum of the sac, it is said, will be avoided, and the intestines do not come in contact with the external air.

2. The intestines will not be exposed to the danger of being cut.

3. In case the arteria epigastrica should be cut, the blood will not flow into the abdomen.

If we take into consideration that the fact of cutting the epigastric artery is hardly mentioned by surgeons who can boast of great practice and experience, (Difffenbach says that he performed herniotomy more than 700 times, and it never happened to him,) we would be inclined to doubt that it ever could occur, unless a very extraordinary deviation of the normal course of the artery was present in the case. If, in opening the peritoneal sac, an intestine should be injured, this accident merely proves the unskillfulness of the operating surgeon.

The dread felt for the air entering the abdominal cavity, we are at a loss to elucidate. We fully agree with the opinion of Dr. Stone, of this city, (*vide* Observations upon the treatment of wounds, N. O. Med. Gaz. vol. 1.) that the air of the ordinary temperature, if admitted into a serous cavity, never will produce serious consequences in a healthy state of the system. In regard to the serious consequences which are apprehended from cutting the peritoneal sac, and attributed to a lesion of the peritoneum, we would suggest, and especially in respect to an old inguinal hernia, that like the change the peritoneum undergoes in the tunica vaginalis propria testis, the peritoneum of a hernial sac cannot be looked upon as the peritoneum of the abdominal cavity; and we are compelled once more to appeal to scientific experience, whose results will vanquish the pale spectre of peritonitis.

In cases where inflammations or suppuration should follow the operation, it cannot but be attributed to the effusion of blood which will always act as a foreign substance. On the other hand, if we reflect upon the fact, that the strangulation, even after the reposition has been performed, must continue both in cases where the place of strangulation is situated in the neck of the sac, happening especially in old herniæ, which, for a long time, have been supported by a truss, and in cases where the strangulation is situated in the sac itself; as, for instance, by the omentum entangling and contracting the intestines; if we consider that we remain wholly ignorant of the state of the contents of the sac; that, in some cases, we deprive nature of her means of forming an artificial anus; and that by the reposition of a gangrened portion of intestine, we should cause the death of the patient; if we farther consider that, in those cases where the peritoneal sac is permitted to remain unopened, the symptoms, after the operation, may continue in the same degree of violence as before; considering all

this, we will easily be able to estimate the real value of an unlimited recommendation of this method.

We feel ourselves justified in advancing the supposition that, although statistics enumerate so many cases of a fatal termination following the operation *with* opening of the sac, the results are drawn from the experience of the advocates of an unrestricted trial of the taxis; advocates who, bankrupt of squeezing, take refuge too late in an operation, when inflammation has already set in, and the protruded intestine is in such a state as to render a recovery of its natural functions impossible. Opening, under such circumstances, the abdominal cavity, the inflammation will spread through it, and destroy the patient.

The last, but not least, important objection to the method of not opening the peritoneal sac, is founded in its impracticability, and the manual difficulty. In dealing with this method, adopted also by A. Cooper, Lawrence says: "The manœuvre, although perhaps easy to the experienced hand of so able an anatomist as Sir A. Cooper, would, I am convinced, be found highly difficult, if not impracticable, by the generality of surgeons. This difficulty arises from the firm manner in which the sac and surrounding parts are concerned, we might almost say, consolidated together."

The extensive experience of Richter shows that this objection is founded in reality. If the stricture, as in the majority of instances, should be at the inner opening of the canal, it cannot be relieved, without cutting the neck of the sac, in which it is truly seated.

The objections which we suggested to the reader, in regard to the method of non opening the peritoneal sac, we are convinced will still be more applicable to the subcutaneous operation, as advocated by Guerin. In following the principles of the first named method, we deprive ourselves of an essential faculty, by shutting up our eyes, yet, in adopting the method of Guerin, we dive into a more complete darkness.

"Let the skillful surgeon," says Diffenbach, "act according to his own experience, but the tyro of the profession he has chosen, who has yet to learn the difficulty in dealing with a strangulated hernia, should not begin his practice by adopting either the method invented by Parè, or the subcutaneous incisions recommended by Guerin."

SPECIAL SELECTIONS.

A COURSE OF LECTURES ON THE THEORY AND PRACTICE OF OBSTETRICS.

By W. TYLER SMITH, M. D., Physician-Accoucher to St. Mary's Hospital, and Lecturer on Midwifery
and the Diseases of Women in St. Mary's Hospital Medical School.

LECTURE XXI.—*The Mechanism of Labor.*—Gentlemen,—Great improvements in any department are commonly of slow growth. This may be said emphatically of our knowledge of the Mechanism of Labor, which, with the motor forces engaged in parturition, stand at the very foundations of the science and art of Obstetrics. More than a century ago, to the honor of the Dublin school of midwifery be it said, Sir Fielding Oulde called in question the opinion which had previously prevailed universally, that the head entered and passed through the pelvis in the direction in which it emerges—namely, the antero-posterior diameter. In his little work, published in 1741, he taught that the face of the child did not lie upon the sacrum of the mother, but was always, in natural cases, turned to one side or the other. He believed, however, that the chin of the child was turned towards one of the shoulders, the neck of the foetus being partly rotated upon its body. This error respecting the different position of the foetal head and trunk was corrected by Smellie, and the belief in the oblique position of the head in the pelvis gained ground amongst accoucheurs in different countries. In 1771, Saxtorph, of Copenhagen, and Solayres de Renhac, of Montpellier, published almost simultaneously the discovery that the head not only *enters* the pelvis with the long diameter in one of the oblique diameters of the pelvis, but that the long axis of the head, in the great majority of cases, occupied the *right* oblique diameter; the occiput being directed towards the left foramen ovale, and the forehead towards the right sacro-iliac symphysis. Solayres de Renhac, went, however, beyond his contemporary, Saxtorph, in describing the mode in which the head passed through the outlet under various circumstances, to which we shall have hereafter to revert. These advances were realized by practical accoucheurs, especially by Baudelocque and his disciples; but it was not until 1818 that Naëgelé gave a full account of the behaviour of the head in the pelvis under the various circumstances under which it may be placed in natural labor. Discarding all theory, and looking closely to the operations of nature, he obtained an amount of knowledge which enabled him to systematize the facts of previous authors, and give us an account of

the mechanism of labor, which subsequent observations have all tended to confirm. No other work, of equally small size, ever exerted greater influence upon any branch of medicine than that of Naëgelé upon midwifery. It may be termed, indeed, the Euclid of Obstetrics, but it will not have executed its mission until every accoucheur, in each individual case coming before him, entirely masters the position of the foetal head. Nothing less than this should be aimed at by every obstetric practitioner. We must not be content with knowing that the head presents, but we must know the exact mode and direction in which the head passes through the pelvis; otherwise we scarcely attain beyond the knowledge of the midwife. "Judgment," to use the words of Hippocrates, can never be otherwise than "difficult," in this subject. In estimating relations of position, we always naturally refer to the position of our own body as the standard of comparison. But in a case of labor, the accoucheur stands in the upright position, and has to deal with the mother and the child in the horizontal position; the foetus and the mother being themselves reversed, the child standing, as it were, on its head within the system of the mother. These complicated positions are so difficult to master, that I have heard men who have attended thousands of cases, confess themselves as only beginning to be certain of the presentations in particular instances. It is only by a careful study of the pelvis and the foetal head in the dried state, and a painstaking observation of the relations of the head and the pelvis in every case of labor, that will enable you to master this difficult problem. Naëgelé tells us that he kept his finger on the head during the whole course of labor, when he wished to ascertain any particular point. There is still enough to be made out respecting the function of parturition to reward every diligent student who may devote his energies to the prosecution of this subject. In every direction we must analyze and synthesize the movements of the foetal head, and the motor forces and the mechanisms which urge and direct it in its course through the pelvis and parturient canal.

The largest movement of the foetal head in parturition is that through the canal of the pelvis, and the passage formed by the vagina and soft parts. This movement is common to all the positions in which the head passes through the pelvis. In its performance, the centre of the head corresponds pretty nearly with the axis of the hard and soft portions of the parturient canal. To this common movement are superadded various movements of the head upon its bilateral axis, its antero-posterior axis, and its vertical axis, all of which vary in character and extent according

to the position in which the head first engages in the pelvis. These movements and differences, considered in relation with the pelvis, constitute the mechanism of labor and the several "positions" as they are called, in which the head presents and passes through the pelvis and soft parts. The head lies at various depths at the commencement of labor. Sometimes the developed cervical portion of the uterus, and the contained foetal head, lie entirely in the pelvis, before the commencement of any uterine action. At others the head is high up in the pelvis, and has scarcely, if at all, entered the brim. As Dr. Rigby points out, the head is more frequently low in the pelvis in primipara, and high up in multiparous women. The cause of this is probably the greater rigidity of the abdominal walls in primiparæ as compared with multiparæ. In many multiparous cases, the head is, however, wholly within the pelvis for some time before the commencement of labor. For the description of labor it is convenient to take those cases in which the head is high up, as the standard this gives us an opportunity of tracing the steps by which the head descends through the pelvic canal.

The mechanism of labor is necessarily somewhat complicated, and it should be the aim of all teachers to render it as simple as possible, by describing as few varieties as may be consistent with nature, and requisite to be understood in practice. It is easy to multiply varieties in the position of the head, by insisting upon trivial differences; but disservice rather than service is done in this way to the advance of obstetric knowledge. It is to be hoped that each successive describer of the process, having the aid of those who have gone over the same subject before him, may do something towards rendering the steps of this progress more and more intelligible, and more decidedly linked with practice. There are four principal positions in which the foetal head presents in the pelvis, and these positions we shall now proceed to consider. The two first positions are termed occipito-anterior, because in them the occiput is placed towards the pubis. The other two are called occipito-posterior, because in them the occiput is turned towards the sacrum.

In the first position, the head, as already mentioned, enters the pelvis in the right oblique diameter, or in a line between the transverse and oblique diameters. The occiput is placed towards the left acetabulum, and the forehead towards the right sacro-iliac synchondrosis. At first, the long diameter of the head is parallel, or nearly so, with the superior plane of the pelvis, the occiput and sinciput being about on the same level. There

is, however, a considerable laterel obliquity of the head. The right side of the cranium is considerably lower than the left, so that the most depending part of the cranial surface is the protuberance of the right parietal bone. As the head descends, there is a slight rotation upon the billateral axis, and the occiput generally becomes lower in the pelvis than the forehead. This descent of the occiput is called the flexion of the head.

If we examine per vaginum when the head is in the the upper part of the pelvis in this position, the right tuber parietale is felt through the walls of the anterior portion of the cervix uteri. This is the point with which the finger comes in contact at the most depending part of the head. The right ear of the child can be felt behind the pubes, if the os uteri is sufficiently open to allow of its being reached. At this time the os uteri does not occupy the axis of the pelvic canal, but is more posterior and directed towards the upper part of the sacrum. If the finger is passed into the os uteri, the sagittal suture is felt crossing the field of the os, in an oblique direction. The patient lying on the left side, the accoucheur standing or sitting behind, and bending over her to make the examination, feels the sagittal suture running forwards and downwards in one direction, and upwards and backwards in the other. The sagittal suture divides the os uteri unequally, a larger portion of the middle and upper part of the right than the left parietal bone being included within the ring of the os. It is this middle and upper portion of the right parietal bone which is felt in making an examination at this period, and it is here that the tumour of the scalp is formed, when this arises from the pressure of the head against the partially dilated os uteri. If the os uteri is sufficiently dilated to allow the finger to be passed along the sagittal suture, it reaches in front, and to the left side of the mother, the triangular posterior fontanelle, and the diverging lambdoidal suture, while behind and to the right side of the mother, it comes in contact with the lozenge shaped anterior fontanelle, and the coronal and frontal sutures. The earlier the examination is made, the more decidedly oblique, or approaching the transverse direction, will the sagittal suture be found.

While the foetal head is passing through the brim of the pelvis so as to enter the pelvic cavity, it has been shown to occupy the right oblique diameter. It has already been mentioned, that the first movement of the head consists of a partial revolution upon its occipitto-frontal axis, so as to effect the depression of the right parietal bone. This movement is termed the obliquity of the head. In the next movement the foetal cranium

oscillates to a slight extent upon its bi-lateral axis, so as to cause a dip of the vertex. This movement, which brings the chin into contact with the sternum, is called the flexion of the foetal head.

As the foetal head descends in the pelvis, it performs what is termed, *par excellence*, its "rotation." The long diameter of the head changes from the oblique to the antero-posterior diameter, or nearly so. The most prominent portion of the occipital bone glides downwards and forwards upon the inclined planes formed by the descending ramus of the pubis and the internal surface of the ilium, so that the middle portion of the superior and posterior quarter of the right parietal bone, and its posterior and upper angle become successively the most prominent points of the descending head. It is in this latter position the tumor of the scalp or caput succedaneum is formed, by the pressure of the soft parts of the outlet upon the head. In this position, also, the head emerges underneath the arch of the pubis. In the rotatory movement from the oblique to the antero-posterior diameter, the head describes about one eighth of the circle. In emerging from the pelvis, the head is placed almost as obliquely as at its entrance, the right tuber parietale being still lower than the left. The head does not emerge either with the occipital or parietal protuberance foremost, the part which escapes first being a point between the two, namely (as already mentioned), the upper and posterior part of the right parietal bone.

Another movement of the foetal head now demands our attention. We have referred to the flexion of the head, by which the chin is brought towards the sternum, and the occiput depressed. When the occiput has passed under the arch of the pubis, this portion of the head becomes to a great extent a fixed point, and the frontal bone and face of the child come down, describing an arc in their progress. This is called the extension of the head, the chin being now separated from the sternum, and the forehead appearing at the lowest part of the cranium.

Immediately after its emergence from beneath the pubic arch, the head usually rotates back again to the aspect it held in the upper part of the pelvis, the face being now turned towards the right thigh of the mother. This re-rotation, which is termed the restitution of the head, is effected in the following manner:—It generally happens that as the head escapes, the right shoulder of the foetus is lowest in the pelvis, and impinges upon the anterior surface of the right ischial spine. From this point it rotates forwards towards the arch of the pubis, under which it passes out, the left shoulder resting upon the perinæum, and generally escaping first. Thus

the body of the foetus rotates in an exactly opposite direction to the previous rotation of the head. The left side of the head glides down the left ischial plane, and the right shoulder glides down the plane of the right ischium. If it should happen, which is occasionally the case, that the left shoulder should be lowest in the pelvis, it glides down the left ischial plane, the shoulders rotate in the same direction as the head, and the face of the child is then turned downwards and towards the left thigh of the mother. When the pelvis is large, and the delivery effected suddenly, the shoulders are sometimes expelled in the transverse diameter of the pelvic outlet without any rotation. In the emergence of the head and trunk from beneath the pubis, the direction impressed by the perinæum, and the expulsive efforts, is such that the head turns upwards between the thighs of the mother, in front of the symphysis pubis.

In the second position, the occiput is turned towards the right acetabulum, and the forehead towards the left sacro-iliac synchondrosis, as the head passes through the brim. The left part of the base of the skull is lowest, the occipital dip, or flexion, being the same as in the first position.

The left side of the head is the lowest, in the second position, as the head descends, the same portions of the left parietal bone being prominent instead of the right. the left ear is felt behind the pubis. The sagittal suture is now found nearly parallel to the left oblique diameter. In an examination, the finger passes upwards and forwards to reach the posterior fontanelle, and downwards and backwards to reach the anterior. The occiput glides down the right ischial planes. The rotation is precisely the same as in the first position, except that it is in the reverse direction. The rotatory movements of the shoulders are also reversed, the face of the child generally turning downwards, and to the left thigh of the mother.

Let us now proceed to recapitulate the different evolutions performed by the foetal head in its passage from the pelvic brim to the external world in the first and second positions.

I.—The movement in the parabolic curve formed by the axis of the pelvic canal and of the vagina.

The different parts of the foetal head change their position in this progress, but the centre of the foetal head may be considered as traversing the axis of the pelvis and of the soft parts of the parturient canal.

II.—The movement of the foetal head upon its occipito-frontal axis.

This movement causes one side of the foetal head to become lower than

the other during the whole progress of labor, after the head has entered the brim.

III.—The movements of the foetal head upon its bi-parietal axis.

These movements consist—first, of the depression of the occiput; and second, of the depression of the sinciput. In the descent of the head through the pelvis, the occipital pole is depressed, but as it emerges under the pubic arch, the frontal pole becomes the lowest point. This oscillation of the forehead downwards upon the bi-lateral axis, constitutes what is termed the extension of the head.

IV.—The rotatory movements of the foetal head upon its perpendicular axis.

These movements constitute the rotations of the head in the pelvis, and subsequent to the delivery of the head, the latter movements being called the restitution of the head. If the head should be placed transversely at the brim of the pelvis, since it emerges in the antero-posterior diameter nearly so, it makes about one-fourth of a complete rotation, but if it be placed in the oblique diameter at the commencement of labor, the rotation is only one-eighth.

In the third position, the forehead is, at the commencement of the passage through the pelvis, placed opposite the left acetabulum, and the vertex towards the right sacro-iliac synchondrosis. The foetal head occupies the right oblique diameter, as in the first position, only the long diameter of the head is exactly reversed, the sinciput being directed forwards and the occiput backwards.

The anterior and posterior fontanelles are at this time generally on a level, or nearly so. The sagittal suture, as the patient lies in the obstetric position, runs obliquely forwards and downwards, and upwards and backwards, just as in the first position. Passed downwards and forwards the finger comes to the anterior fontanelle and upwards and backwards it reaches the posterior bregma. Instead of the right tuber parietale, it is the left parietal bone which is felt lowest in the pelvis. Generally in these cases, as labor proceeds, the vertex descends more than the forehead, so that it is easier to reach the posterior than the anterior fontanelle. When the head is thus placed in the third position, it may take two paths in its exit from the pelvis. In one, the vertex may continue to descend, and approach towards the antero-posterior diameter of the outlet, the head being expelled with the forehead towards the pubis, and the occiput towards the sacrum. The head in this case is expelled just as it is in the oblique position, ex-

cept that the positions of the forehead and vertex, and the anterior and posterior fontanelles, are reversed. If the head takes the second route, the vertex, instead of descending in its original position, or inclining towards the sacrum, rotates upon its perpendicular axis, and the long diameter of the head passes first into the transverse diameter of the pelvis, and then into the left oblique diameter. At the completion of this change, the head exactly occupies the second position, with the posterior fontanelle towards the right foramen ovale, and the anterior fontanelle towards the left sacro-iliac synchondrosis. The modes in which these two different terminations of the third position are effected are as follows :

The spinous process of the ischium appears to be the determining cause of the ultimate direction of the head in the third position. If the occiput is driven below and behind this point, the head emerges from the pelvis in the position it held at the commencement of its passage through the pelvis, or nearly so. The forehead is in apposition with the left part of the pubic arch, and occiput with the right sacro-iliac synchondrosis. The prominence of the occiput is in this case a serious impediment to the passage of the head over the sacral surface and through the perinæum. When the pelvis and the head are of average size, the foetal head cannot pass in this position until it has been moulded by the pressure of the sacrum, and the uterine pains. Before the head is expelled, the occiput is compressed and the cerebral mass is thrown forwards, so that when the child is born, the forehead is prominent and the occiput depressed. Some authors say that the foetal head seldom or never passes in this direction, except when the pelvis is small and the foetal head large; but I have several times met with examples of the third position in which the head had descended to the perinæum in the third position, in cases where the head had been of large size, and in which it was necessary to apply the forceps to effect delivery. When the child is born in the occipito-posterior position, the forehead, eyes, nose, mouth and chin successively emerge from under the pubis, and the occiput is forced down the sacral and occygeal planes, and over the perinæum.

More frequently, the head on entering in the third position, passes downwards, until the occiput meets the spine of the right ischium, when instead of passing behind this prominence, it glides in front of it, and directed by the ischiatic planes, passes downwards and forwards until it occupies the second position. The vertex in this movement travels from the right sacro-iliac symphysis to the right foramen ovale. The head is

then borne in precisely the same way as though it had originally presented in the second position, or the left oblique diameter of the pelvis.

In the fourth position the head enters the pelvis in the left oblique diameter, but the forehead is directed towards the right acetabulum, and the occiput towards the left sacro-iliac synchondrosis. Just as the third position is the reverse of the first, so this is the reverse of the second. As the head enters the brim, the occiput and the right side of the base of the foetal head are depressed, and the right parietal bone is the lowest point.

Inferiorly, the sagittal suture runs in the same direction as in the second position; but the anterior fontanelle is divided towards the right foramen ovale, and the posterior towards the left sacro-iliac synchondrosis. The right parietal bone is the presenting portion of the head, and the part reached in examination by the finger is the anterior and upper part of the right parietal surface. As in the third position, the vertex may either pass into the hollow of the sacrum, and the head be delivered in the left occipito-posterior position, or it may advance in front of the spine of the left ischium, and be converted into the first position. The latter is the usual termination of presentations in the fourth position, just as delivery in the second position is the usual sequence of presentations in the third position.

These are the chief positions in which the head presents and passes through the pelvis in natural cases. Other varieties are enumerated by some obstetric teachers, such as the descent of the head through the upper part of the pelvis, in the transverse or in the antero-posterior diameters. This would make four other positions, since the occiput may be either on the right or left side in such cases, or placed anteriorly or posteriorly. These varieties need only be mentioned, in regard to the mechanism of natural labor, as they rarely, if ever, occur, except when the head of the foetus is very small in comparison with the size of the pelvis, or when the pelvis is deformed, and its transverse or antero-posterior diameters considerably increased.

LECTURE XXII.—*The Mechanism of Labor.*—Gentlemen, the mechanism of parturition, in the several positions in which the foetal head passes through the pelvis, occupied our attention in the last lecture. It would be difficult to exhaust this subject in the course of several lectures. Mechanism, position, and motor power, in their various relations, are the elements or grammar, of the obstetric art. It is absolutely necessary that they should be mastered in order to practise midwifery with anything like sat-

isfaction. I need not dwell on the difference between the state of mind of a student or young practitioner who, with a case of labor under his hands, knows the exact position of the head, and one who merely knows that the head presents, without being in the least degree aware of the position in which it may be expected to make its exit. They will await the result with the confidence which knowledge alone imparts; the other will be disturbed with fears of something wrong, and anticipations of occipito-posterior births, when nothing of the kind is likely or possible, or with apprehensions of other complications or causes of difficulty and delay.

The positions in which the head presents are not most frequent in the order in which they are numbered in describing the positions themselves. The presentations in the first position are more numerous than all the other positions put together. Naëgelé found the first position to occur in 69 per cent. of the head presentations which came under his observation. M. Halmagrand gives 74 per cent., Madame Lachapelle 77[°] per cent., and Madame Boivin 80 per cent., as the proportion of the first position in head cases. Dr. Simpson found the first position in 256 cases out of 335 cranial cases. The variation between 69 and 80 per cent. is not very great, and as the statistics of these authors extend to 60,000 cases, we may be sure that the frequency of the presentation of the head is pretty accurately given in these results. Since the time of Naëgelé's observations, the third position has been shown to be the next in frequency to the first. In Naëgelé's own practice, he diagnosed the third position in 29 per cent. out of 1210 cases. Other authors describe the second position as being met with in a greater proportion than that given by Naëgelé, and they place the second position as being the next in frequency to the first. Naëgelé explains this by supposing that the occurrence of the third position is frequently not ascertained until it has changed into the second position, and it has then been considered to have been the second position originally. This is in all probability the truth. Madame Boivin describes the second position as occurring in 19 per cent., and Madame Lachapelle in 21 per cent.; while Naëgelé, out of more than 1200 cases, found it only in .07 per cent. Dr. Simpson remarks that Naëgelé's observations were made by himself, while those of Madame Boivin and Madame Lachapelle were made by females attached to the Maternité Hospital of Paris. We may, then, conclude that Naëgelé's proportions are the most correct, and the observations made subsequently to his own tend strongly to confirm them. Naëgelé found the fourth position to occur only in the small pro-

proportion of .03 per cent. Thus we may consider the first position as the most frequent; the third comes next in order; and the second and fourth are the most rare. In this enumeration, cases occurring originally in the third and changing in the second, are considered as belonging to the third position. While I have no doubt that Naëgelé was, in the main, correct in his estimate of the great frequency with which the third position changes into the second, I believe a larger number than he supposes are delivered as occipito-posterior cases. Naëgelé states, that out of 96 cases in which the head presented originally in the third position, he only observed it to be delivered in the occipito posterior direction in 3 cases, and in all of these the pelvis was larger than usual, or the head was small and compressible. Out of a smaller number of vertex cases in the third position, I have met with two instances in which the labors were very severe, and in which the head passed with the occiput towards the rectum.

In the first and third, or the most common positions of the head at the commencement of labor, it will be observed that the head occupies the left oblique diameter; in the first the occiput being the most anterior part of the head, and in the third the sinciput. In both the right side of the head is lowest in the pelvis. As far as I am aware, no other reason can be given for the greater frequency of presentations in the left oblique position with the right side of the foetal head downwards, than the greater strength of the right limbs, and the occupation of the right oblique diameter by the rectum.

It is necessary that what is meant by the presenting part of the foetal head should be clearly defined. Hitherto, a good deal of confusion has prevailed upon this subject. Is it the part found most prominent within the ring formed by the soft parts of the parturient canal in the different stages of labor—namely, the os uteri, the vagina, and the ostium vaginæ? Is it the part of the head found lowest in the pelvis during the progress of labor? Is it the part first met with on introducing the finger into the pelvis, in the direction of its axis? It will be found that all these points of view are mixed up together, in some of the best and most recent works on obstetrics, with the effect of causing considerable confusion. For instance, the right tuber parietale is very commonly said to be the presenting part in the first and fourth position, as the head passes through the brim and upper part of the pelvis, because it is the lowest point met with on introducing the finger into the vagina. It is, however, more frequently, indeed almost invaria-

bly, felt through the anterior wall of the cervix, and not within the ring of the os uteri, unless after the full dilation of the latter. I would suggest that it would be best to define the presenting part, in every kind of cranial position or presentation, as that portion of the foetal head felt most prominently within the circle of the os uteri, the vagina, and the ostium vaginæ, in the successive stages of labor.

We may consider the right and left tuberosities of the parietal bones as points common to the positions in which the occiput is found either on the right or the left side of the pelvis respectively. That is, in the first and and fourth positions, the occiput is one case in the early part of labor in the neighborhood of the left acetabulum, and in the other near the left sacro-iliac synchondrosis. In both, the right tuber parietale is the lowest point of the foetal head, in the early part of labor. In the second and third positions, the occiput is turned towards either the right acetabulum or the right sacro-iliac synchondrosis. In both the left tuber parietale is lowest in the pelvis.

In the first position, when the os uteri is open to the extent of, say an inch in diameter, the part felt within the circle of the os is the upper and nearly the middle portion of the right parietal bone. As labor advances, the part of the head in the centre of the dilated os uteri is the middle portion of the posterior and upper quarter of the same bone. When the os is sufficiently open, the right tuber and the right ear may be felt. As the head advances through the vagina and presents at the outlet, it is the upper and posterior angle of the bone which is most prominent. It is upon these parts in succession that the tumor of the scalp or caput succedaneum is formed by the pressure of the os uteri and the other portions of the parturient canal upon the foetal head. The tumor of the scalp formed upon the middle of the upper half of the right parietal bone by the os uteri, may be called the primary caput succedaneum. When the os uteri is rigid, the swelling marks the foetal head very distinctly, and if the subsequent part of the labor should be easy and rapid, there may be no other tumor. If the latter part of labor should be difficult, a swelling of the scalp is formed over the posterior and superior angle of the right parietal bone. This may be called the secondary tumor. Sometimes the dilatation of the os uteri is so easy, and the compression of the scalp so slight, that no primary tumor is formed. In other cases a tumid ridge extends from the middle of the upper border of the right parietal bone to its posterior and superior angle, or even to the upper portion of the occipital bone.

In the fourth position, the part first felt within the os uteri, as the head lies in the left oblique diameter, with the occiput towards the left sacro-iliac synchondrosis, is the middle of the upper portion of the right parietal bone, very nearly, in fact, the same point as is felt in the first position. It is here that the primary tumor of the scalp is formed. The sagittal suture is, however, nearly in the direction of the left oblique diameter, the anterior fontanelle is directed towards the right acetabulum, and the posterior fontanelle towards the left sacro-iliac synchondrosis. In the first position the sagittal suture, it will be borne in mind, runs nearly in the direction of the right oblique diameter.

It has been shown that the head, when presenting in the fourth position, may descend through and emerge from, the pelvis, in two modes. The occiput may turn towards the hollow of the sacrum, in which case the frontal bone approaches the left side of the pubic arch; or, as we have seen, the occiput may turn forwards and make a quarter, or rather more than a quarter turn, so as to approach the left portion of the pubic arch.

In the first termination, the anterior and upper portion of the right parietal bone passes first through the vagina, and emerges underneath the arch of the pubis. It is upon this point that the secondary caput succedaneum is formed. Sometimes this overlaps the posterior part of the right frontal bone, and some portion of the anterior fontanelle.

In the second termination of the fourth position, the parts of the head present in almost precisely the same order as in the first position, and the tumor of the scalp is formed in the same sites. The change is from the middle and upper portion of the right parietal bone to the posterior and upper angle of the same bone.

In the second and third positions, the presenting parts of the foetal head and the tumors of the scalp are the same as in the first and fourth, only it is the several parts on the left parietal bone, instead of the right. In the second position, the middle of the upper portion of the left parietal bone presents in the first instance, and movements of rotation and advance gradually bring the posterior and upper portion of the parietal bone to be the site of presentation under the left portion of the upper part of the pubic arch. In the third position, it is the middle and upper portion of the left parietal bone which presents within the area of the dilating os uteri. In the first and common termination of this position, the head, in making its quarter turn, so as to bring the occiput to the right foramen ovale, brings the same parts of the left parietal bone into presentation, as in the

second position. In the second termination of the third position, the turn to the extent of one-eighth of the circumference of the pelvis brings the anterior and upper part of the left parietal bone to be the presenting part, and this is the first portion of the head to emerge under the pubis in such cases.

As the vertex is not the first part to be delivered in occipito-anterior cases, but the posterior and upper part of the right and left parietal bone, it follows that in the labors occurring in the first position and in the occipito-anterior termination of the fourth position, it is the right tuber parietale which is first delivered. When this has passed through the ostium vaginæ, the circle of the outlet intersects the head between the two tuberosities in a diagonal direction. The same occurs with respect to the left tuber-parietale in the second position, and in the occipito-anterior termination of the third position. So, also, in occipito-posterior deliveries, the two tuberosities do not pass through at the same time. In the fourth position it is the left, and in the third, the right, tuber which first escapes. Thus the bi-parietal diameter of the head always passes through the pelvis and soft parts in an oblique direction, so that the largest lateral diameter never engages the opposite sides of the canal at the same time.

The moulding of the foetal head during a severe labor is peculiar in the different positions. In the occipito-posterior positions, the mass of the brain and the cranium are so moulded that the anterior or frontal end of the cranial ovoid becomes larger than the occipital. In the fourth occipito-anterior position, the right, and in the third, the left, side of the frontal region is the most prominent. In the first, and the occipito-anterior terminations of the fourth positions, the head is moulded so as to make the right side of the head, and especially the right side of the occipital and posterior parietal regions the most prominent. In the second, and the occipito-anterior terminations of the third, the same prominence is impressed upon the left and posterior portion of the foetal head. Dr. Swayne, of Bristol, has pointed out that in occipito-posterior positions, a vacant space may be felt under the pubic arch owing to the small size of the frontal part of the head before it has been moulded by the pressure of parturition.

On former occasions I have referred to the principle of the screw, which obtains in the pelvis, and to the screw-like, spiral, or rotatory movement of the foetal head in passing through the pelvis in the different cranial positions. It has not hitherto been made out, but I believe the mechanism of the pelvis and the foetal head to be precisely that of a body

moving down a spiral inclined plane or screw. A screw is an inclined plane, arranged in a spiral form, either round a solid cylinder, or upon the internal surface of a hollow cylinder. When the one is fitted into the other, the spiral arranged round the solid cylinder is called the male, and that around the hollow cylinder, the female screw. In the mechanics of parturition, the pelvis plays the part of the female, and the foetal head the part of the male screw; and it is by the movement of the one within the other, in a spiral direction, that the head passes, so as to meet with the least possible mechanical resistance from the pelvis and soft parts.

The transverse, oblique, and antero-posterior diameters are successively the longest diameters, in passing from the brim of the pelvis to the outlet. The foetal head, being of oblong shape, can only pass by entering the brim in a position approaching to the transverse, and descending with the long diameter of the head in relation, first with the oblique diameter, and then with the antero-posterior diameter of the pelvis, or very nearly so. Such is, in reality, the direction in which the head moves. If we were to place a number of pelves one above another, we should represent pretty correctly the chamber of a female screw; and a line drawn through the long diameters of the various planes would form a spiral, and mark the path of the groove, or thread, as it is termed, of the screw. In the single pelvis, a line drawn from the transverse, through the oblique, and towards the antero-posterior diameters, would mark the path of the portion of the spiral through which the foetal head moves in parturition. This, in the case of the first position, is somewhat more than one-eighth of a circle. The arrangement of the foetal head with reference to the trunk favors this rotation. The spiral incline of the pelvis impresses itself upon the foetal cranium as the head of the male screw, and this rotation is facilitated by the ease which the head of the foetus moves upon the neck.

The pelvis represents a portion of a female screw, admitting a male screw, (the foetal head,) of an oblong shape. But the male and female screws in the case of the pelvis and foetal head, are not accurately adjusted at all points. There is, however a general adjustment in the shape of the foetal head and the arrangement of the pelvic diameters. It is only at the points where the posterior part of the parietal bone, or of the occiput, comes in contact with the planes of the ischium and pubis, that the thread of the male screw bites, as it were, the thread of the female. It is here that the spiral direction is impressed upon the foetal cranium. The line of this portion of the spiral or screw may be made out by chalking the salient

point of the foetal head, and moving it through the pelvis in the direction it takes in parturition. The chalk line marked upon the pelvis by this proceeding will show, accurately, the track of the segment of the thread or groove of the female screw, through which the prominent portion of the head passes.

The two halves of the pelvis also represent portions of two screws, the inclined planes of which are arranged in opposite directions. Thus, if the head be placed in the second position, the spiral movement is reversed from that which obtains in the first position, and the long diameter of the foetal cranium moves from the transverse, or the left oblique, to the antero-posterior diameter. In the case of labor occurring in the first, the right shoulder moves upon the right portion of the spiral or screw formed by the right ischium and pubis, and glides down it, just as the head does in the second position. In the second position, on the contrary, after the delivery of the head, the left shoulder rotates upon the planes of the screw or spiral of the left side of the pelvis, and passes out with a movement similar to that which belongs to the head in the first position.

Perhaps the screw or spiral motion is seen still more distinctly in the common terminations of the third and fourth positions. Here, rather more than one-fourth of a circle is completed in the movement which brings the occiput from the right or left sacro-iliac synchondrosis, to the right or left ramus of the pubic arch. The movement is distinctly spiral, only that when the head presents in the occipito-posterior position, it has to pass through a spiral having a larger diameter than when the head presents in the occipito-anterior positions.

The contractions of the uterus and abdominal muscles constitute the *vis à tergo* which moves the foetal head down the planes of the ischium and pubis. No rotatory movement appears to be given to the foetal head by the pains. The spiral direction depends entirely upon the portion of the spiral inclined plane formed by the osseous surfaces. If any weight or pressure be placed upon a male screw, adjusted in the chamber or box of the female, it has the tendency to descend the spiral plane. We see this familiarly exemplified in the press for stamping letters, in which a weight at the top of the screw causes it to descend. In practice, these considerations are important with reference to the direction in which traction can be used to the greatest advantage in delivery by the long or short forceps; rectifying the positions of the head in the case of presentations in the third or fourth positions; and in other operative proceedings.

EDITORIAL AND MISCELLANEOUS.

CHARITY HOSPITAL.—The Administrators of the Charity Hospital met on Monday, November 3d, 1856, at 12 o'clock, M., and elected the following gentlemen Surgeons and Physicians, to serve in this institution for the ensuing six months:

From the Medical Department of the University of Louisiana:

Surgeons—Drs. Stone and Hunt.

Physicians—Drs. Jones, Cenas, Nott and Wederstrandt.

From the New Orleans School of Medicine:

Surgeon—Dr. Choppin.

Physician—Drs. Fenner, Beard, Picton, Thos. Peniston and Axson.

Physicians from the Profession at large:

Drs. Williams, Cox, A. Penniston, Martin and Taney.

From the above it will be seen that the faculty of the New Orleans School of Medicine have, through the liberality of the Board of Administrators, been accorded privileges in the Charity Hospital which will afford them ample opportunities for imparting clinical instruction to their pupils. New Orleans is particularly favored in having an institution which offers such extraordinary advantages to students of medicine. Not only are both her schools provided with all they could desire in this way, but even in the winter season physicians who may be disconnected with the schools can be elected to wards in the institution—thus doing away with everything in the shape of monopoly, and offering the fairest field for honorable competition in one of the noblest of man's pursuits. Good fruit will ripen on the tree planted in a soil so fertile as this, and a few years will find New Orleans truly the seat of medical learning in the South.

Apropos of Medical Schools and the noble old Charity, the prospect is most fair for the largest collection of students of medicine in our city this winter that has ever been known. Already are they coming in in considerable number, and they are going to work in right good earnest. At the same time the faculty of the New Orleans School of Medicine are highly gratified to find that their efforts in behalf of medical education are meeting with a hearty response at the hands of the young aspirants to our professional honors. Already have a goodly number enrolled their names as matriculants, and the prospect is most cheering for a flattering commence-

ment. Such should ever be the fruit of great and honorable efforts in every important cause.

TYLER SMITH'S LECTURES ON OBSTETRICS.—We have, for some time past, presented our readers with a monthly synopsis of the valuable lectures of Dr. Tyler Smith, and have placed the same in our editorial department. Now, however, we have reached his lectures on the Mechanism of Labor, and we cannot, with any show of justice to the author, attempt to abridge them. We therefore give them a place in the department of "Special Selections," confident that they will prove of the highest possible interest to our readers—as they are certainly the best published lectures on this subject in the English language.

SHAKESPEARE AND PHYSICS—*Messrs. Editors.*—It is a matter of curious speculation as to how far the knowledge of Physics had progressed anterior to the period of Newton and Herschell; but, as a literary curiosity, which has not hitherto seen the light, the following exemplification of Shakspeare's genius and prescience may not be uninteresting.

Some years ago, while pursuing my studies in Natural Philosophy, and at the same time reading the plays of the immortal bard, I was struck by a wonderful and singular coincidence. I hardly need explain to the readers of this journal, what we mean by the "*Interference of Light*;" but as it may, perhaps, fall into the hands of those who are not so well versed in the mysteries of science as our professional brethren, I will briefly state what we mean by it.

About the beginning of the present century, Dr. Young established a principle in optics which, for singularity and beauty, is, perhaps, unequalled in Physics. "Considering the manner in which the vibrations of two musical sounds, arriving at once at the ear, affect the sense with an impression of sound or silence, according as they conspire or oppose each other's effects, he was led to the idea, that the same ought to hold good with light as with sound, if the theory which makes light analagous to sound be the true one; and that, therefore, two rays of light, setting off from the same origin, at the same instant, and arriving at the same place by different routes, ought to strengthen, or *wholly or partially destroy each other's effects*, according to the difference in length of the routes descended by them." *That two bright lights should, under any circumstances, combine to produce darkness, may be considered passing strange; but is most*

true; and it is this fact of two bright lights producing darkness, that we refer to, when we speak of the interference of light. What I wish to draw particular attention to, is the singular circumstance of this fact, discovered in the present century by Dr. Young, being known to Shakspeare. In the first act, and first scene of "Love's Labor Lost," occurs the following line, a strange anticipation of a modern discovery:

"Light seeking light, doth light of light beguile."

The very words, and that without the slightest ambiguity, of the law of the interference of light, for it simply expresses, in practical language, that two rays of light, meeting at the same spot, deprive each other of light, and produce darkness.

To what are we to attribute this wonderful circumstance? Was Shakspeare, indeed, as some have averred, endowed with the gift of prescience, and was his knowledge beyond mortal ken? Or may we believe, with a late enquirer into the authenticity of Shakspeare's works, that he was not the author of the wondrous plays that bear his name, but simply the editor and collaborator of them; and that they were written by a club, of which Burleigh, Raleigh, Cecil, and Bacon were the chosen associates? If such were the case, we might well imagine that the far-seeing eye of the author of *hovum organon*, might have pierced out and gained for himself the knowledge of this law of nature, whose chosen servant and interpreter he was. To Bacon we might, without any difficulty, concede an acquaintance with this recondite law; but it would exalt Shakspeare to more than mortal, could we suppose him the author of this line, and at the same time cognizant of the meaning it expresses. The line, certainly, is not a chance one; and whether it be Shakspeare's, or Bacon's, it only corroborates an expression I once heard from Dr. Arthur Wilson, who, in his lectures at the Royal College of Physicians, said, "that no man could be a good physician who had not some acquaintance with the works of William Shakspeare." In whatever aspect we regard it, this line is curious and interesting.

I. L. CRAWCOUR, M. D.

TO OUR PATRONS.—We must crave the indulgence of our friends for the late appearance of our number. Sickness and other unavoidable mischaps have caused the delay.

HEALTH OF OUR CITY.—Our list of mortality shows the city of New Orleans to be in the enjoyment of most excellent health. The mortality

for five weeks, ending October 26th, is but seventy more than for the *four* previous weeks—thus exhibiting an improvement on that which we then thought to be a most desirable condition of things. Yellow fever has taken its departure, there being but one death from this disease for the week ending November 2nd.

BOOKS AND PAMPHLETS RECEIVED.

"THE HISTORY AND STATISTICS OF OVARIOTOMY, *and the circumstances under which the operation may be regarded as safe and expedient; Being a Dissertation to which the prize of the Massachusetts Medical Society was awarded, May, 1856.*—By GEORGE H. LYMAN, M. D.

To the author we are under obligations for a copy of this most complete resumé of useful information on the subject of Ovariectomy. To say that it is valuable, would not express our high estimate of the production; for it might have been far less worthy of the honor awarded it, and yet have received this distinction. To all who are at all interested in the subject of which the author so ably treats, a copy must prove truly invaluable. Did our limits permit, we would be pleased to make copious extracts, but we must content ourselves with the following, and urge the careful perusal of the whole dissertation on all who take the least interest in the subject.

ANALYSIS OF THE CASES.

I. Of the three hundred cases, the operation was completed by the removal of the tumor, in 208; which, excluding four not mentioned, gives us 70.27 in 100.

The tumor could not be removed in 78; or one in 3 31-39, or 25.35 in 100.

The tumor was partially removed in 78; or one in 29 3-5, or 3.37 in 100.

The removal of the tumor is not mentioned in four.

II. In one case, the result is not stated; of the remaining 299 operations, 179 recovered, 120 died; or one in 29 3-5, or 40.13 in 100.

III. Of the 208 cases in which the operation was completed, 119 recovered, or 57.21 in 100; 89 died, or one in 2 20-89, or 42.78 in 100.

IV. The above gives us, therefore, 300 operations for the removal of ovarian disease, of which 119 only were successful *in the removal of the disease and the recovery of the patient*; or one in 2 62-119, or 39.66 to 100—less than two-fifths.

V. Of the 78 cases in which the tumor could not be removed, 55 recov-

ered from the operation, or 70.51 in a hundred; 22 died, or one in 36-11, or 28.20 in 100; and in one the result is not given.

VI. Of the ten cases in which the tumor was partially removed, five died, and five recovered from the operation."

"THE TRANSACTIONS OF THE NEW HAMPSHIRE MEDICAL SOCIETY,"
(Sixty-sixth Anniversary,) held at Concord, June 3d and 4th, 1856.
From Dr. GEORGE H. HUBBARD.

A most welcome pamphlet, replete with valuable and interesting matter.

"TYPOGRAPHIC ADVERTISER"—By L. JOHNSON & Co.: 6 Sansom street, Philadelphia.

We are indebted to the proprietors for several copies, and congratulate them on having attained almost perfection in their useful and ornamental art.

REPORT OF DEATHS IN THE CITY OF NEW ORLEANS, for the five weeks ending October 26th, 1856:—

Men, 201; Women, 109; Boys, 152; Girls, 129—Adults, 310; Children, 281—Males, 353; Females, 238—Colored persons, 95:—Total, 591.

Diseases—Abscess, 1; Albuminuria, 2; Apoplexy, 9; Do. of Lungs, 1; Asphyxia, 1; Bowels, dis. of, 4; Brain, dis. of, 3; Bronchitis, 5; Burned, 5; Cancer, 3; Do. of Uterus, 1; Do. of Stomach, 1; Casualties, 5; Cholera, 5; Do. Infantum, 6; Do. Morbus, 2; Cirrhosis of Liver, 1; Concussion of Brain, 1; Congestion of do., 7; Do. of Lungs, 6; Consumption, 64; Convulsions—Adults, 3; Do. Infantile, 39; Do. Puerperal, 3; Cramps, 3; Debility—Adults, 5; Do. Infantile, 8; Delirium Tremens, 8; Diarrhea, 34; Dropsy, 12; Do. in Chest, 2; Drowned, 6; Dysentery, 28; Enlargement of Heart, 1; Do. of Liver, 1; Enteritis, 9; Epilepsy, 1; Elephantiasis, 1; Entero-colitis, 2; Erysipelas, 2; Exposure and want, 1; Fever, 1; Do. Bilious, 3; Do. Congestive, 17; Do. Intermittent, 2; Do. Puerperal, 1; Do. Remittent, 1; Do. Typhoid, 11; Do. Typhus, 2; Do. Yellow, 29; Fracture of Skull, 1; Gangrene of Mouth, 1; Do. of Stomach, 1; Gastro-enteritis, 3; Hemorrhage, 4; Do. of Womb, 1; Heart, dis. of, 7; Hooping Cough, 3; Hydrocephalus, 1; Inflammation, 1; Do. of Brain, 11; Do. of Liver, 6; Do. of Lungs, 7; Do. of Stomach, 2; Infanticide, 1; Intemperance, 3; Killed or murdered, 2; Lungs, dis. of, 1; Marasmus—Adult, 5; Do. Infantile, 17; Measles, 3; Meningitis, 2; Old Age, 10; Palsy, 1; Parturition, difficult, 1; Peritonitis, 4; Poison, 1;

Premature Birth, 2; Scrofula, 1; Scurvy, 1; Softening of Brain, 1; Spine, dis. of, 1; Still-born, 39; Suicide, 1; Teething, 15; Tetanus, 2; Trismus Nascentium, 29; Tumor of Mesentery, 1; Ulceration of Leg, 1; Do. of Throat, 1; Unknown, 7; Worms, 1; Wounds, 2; Not stated, 12—Total, 591.

Diseases Classified—Zymotic, 151; Nervous System, 123; Respiratory System, 87; Digestive System, 63; Circulatory System, 13; Urinary System, 2; Generative System, 5; Integumentary System, 1; Sporadics, 50; External Causes, 51; Age, 10; Not specified, 37—Total, 591.

Ages—Under 1 year, 168; 1 to 2 years, 22; 2 to 5 years, 36; 5 to 10 years, 25; 10 to 15 years, 14; 15 to 20 years, 16; 20 to 25 years, 30; 25 to 30 years, 58; 30 to 40 years, 97; 40 to 50 years, 51; 50 to 60 years, 42; 60 to 70 years, 17; 70 to 80 years, 6; 80 to 90 years, 6; 100 years and upwards, 3—Total, 591.

Nativities—Africa, 1; Belgium, 2; England, 7; France, 21; Germany, 47; Ireland, 81; Poland, 1; Prussia, 6; Scotland, 1; Spain, 2; Switzerland, 2; United States, 220; Unknown, 199.

EXCERPTA.

CHRONICLE OF MEDICAL PROGRESS.—*Results from the Quantitative and Qualitative Analysis of Homœopathic Medical Preparations.* By EDWARD H. PARKER, M. D., of New York City. Read before the New Hampshire State Medical Society.. (*From the Transactions.*)

During the last two years my attention has been repeatedly called to the drugs used by gentlemen professing to practice medicine "homœopathically." In consequence of my observations, I determined, as opportunity offered, to obtain specimens of the remedies actually used by these practitioners, and sold by various pharmacutists, and to submit them to an experienced chemist for analysis. This has been done in three instances with the following results:

The first analysis was made of the contents of two vials, marked respectively *Mercurius Solubilis*, and *Arsenicum*. This is their history.

A gentleman with whom I had become acquainted in some business connections, often talked to me of his health, and of the treatment to which

he was subjected by a prominent homœopath of this city. Among other powders, he showed me some which he was taking, and which I was sure contained a notable quantity of nitrate of silver. He also praised the treatment to which his child was submitted when it had a diarrhœa from teething, or other cause. A gray powder and a white one were given alternately, and the child liked to take them. His wife kept them constantly by her, and if the child had a discharge from the bowels which she thought was a little too loose, she would give her a few doses of these powders. She thought, however, that the blackish powder (*merc. solub.*) did the most good. My friend constantly urged me to try them, for, I think that because I did not rail at homœopathy, but spoke of its practitioners as I would of other gentlemen, he had some hopes of converting me to his faith, than which I can conceive of no more preposterous supposition. Finally, I requested him to procure for me some of the same powders he was using for his child. This he did, and I placed them in the hands of Dr. Arthur Du Berceau, of this city, who is a skillful analytical chemist. This is his report :

One hundred parts of white powder, marked *Arsenicum Alb.*, contain 1.112 of *Arsenious Acid*. The remainder is *cane sugar*. The second, marked *Solubilis Mercury*, contains in one hundred parts, 11.00 of *Metallic Mercury*. The remainder is *cane sugar*. The mercury was in the condition of black oxyd, obtained by the reaction of proto-nitrate of mercury and ammonia.

The mother, when told of the amount of mercury and arsenic which she had been giving to the child, was horrified, and has since used them less indiscriminately.

At my request the same friend purchased for me a case of medicines of a homœopathic druggist. It is like those which he ordinarily sells for family use. This I also placed in the hands of Dr. Du Berceau, and he obtained the following results :

In the bottle marked *Calc. Carb.*, 100 parts of powder contain 1.066 Carb. of lime.

In the bottle marked *Carb. Vegetabilis*, 100 parts of powder contain 0.500 fine Charcoal.

In the bottle marked *Arsen. Alb.*, 100 parts of powder contain 1.120 *Arsenious Acid*.

In the bottle marked *Mercur. Solub.*, 100 parts of powder contain 1.350 *Metallic Mercury*.

In the bottle marked *Hepar. Sulph.*, 100 parts of powder contain 0.900 Sulphur.

In the bottle marked Stibium, 100 parts of powder contain 0.500 Oxyd of Antimony.

In the bottle marked Sulphur, 100 parts solution contain 0.100 Sulphur.

In the bottle marked Phosphorous, 100 parts solution contain 0.430 Phosphorous.

The fluid contents of the vials in the case, with the exception of the last two in the preceding list, were not examined, partly because I wished to preserve them to satisfy the minds of those who might desire to see for themselves; and partly because it is so difficult to do anything more than to ascertain the quantity of solid matter which remains after evaporation of the menstrum. The qualitative analysis of organic substances is well known to be one of the most difficult and uncertain of the operations of the chemist. The sugar in these powders was that obtained from milk.

It will be observed, that in this instance the arsenic and soluble mercury are the strongest preparations, though the latter does not compare in its amount of metallic mercury with the proportion found in the first analysis. These two remedies seem to be great favorites with homœopaths, being frequently prescribed by them. Why this is we now understand.

About the same time I obtained a set of preparations which had been used by a physician who determined to try his hand at homœopathy, and took advantage of the position which he occupied in one of the dispensaries of New York, to make his experiments. After his resignation, the preparations which he had been using were left in the hands of the apothecary of the institution, and some of them were selected by me for analysis. They were purchased at a different shop from those which were before analyzed, and the direction given was, that when about two-thirds of the vial in any bottle (they were all solutions,) were used, the vial should be filled up with proof spirits. This will, perhaps, account for some of the variations in the strength of the preparations. It was found that there was of—

Tincture of Silicia, in 100 parts, 0.025 of Silica.

Tincture of Hepar. Sulph., in 100 parts, 0.050 of Hepar. Sulph.

Tincture of Baryta Carbonica, in 100 parts, 1.450 of Carbonate of Baryta.

Tincture of Calc. Carbonica, in 100 parts, 0.500 of Carb. of Lime.

Tincture of Arsenica, in 100 parts, 0.025 of Arsenious Acid.

Tincture of Carb. Vegetabilis, in 100 parts, 0.050 of Charcoal.

Tincture of *Mercurius Solub.*, in 100 parts, 0.100 of Solub. Mercury.

Tincture of *Lachesis*, in 100 parts, 0.025 residue after evaporating the alcohol.

Tincture of *Sepia*, in 100 parts, 0.025 residue after evaporating the alcohol.

Some of these preparations, as the *Baryta Carbonica*, contained a thick sediment which carried up the per centage. The other preparations which were left were vegetable, and were therefore excluded from the analysis.

These are all the analyses which I have yet caused to be made, but they are somewhat instructive. The first two preparations were obtained by the direction of a homœopathic practitioner, and one of them, the *merc. sol.*, is more than one-tenth pure mercury, the proportion of the oxyd being consequently somewhat greater. The "*arsenicum*" contains 1.112 parts of arsenious acid, while the usual form in which arsenic is given, viz: Fowler's solution contains one-half a grain to each fluid drachm, the dose for an adult being about ten drops.

The second analysis was of drugs sold for "family use," and it is observable that the *arsenicum* is even richer in arsenious acid than the first. The *mercurius* has a much smaller portion of metallic mercury, and yet there is sufficient in it to produce all the effects of this metal when given in small doses. The tinctures accompanying the powders are, so near as I can tell by the ordinary modes of examination, of as great, if not greater strength than the corresponding preparations used by physicians. Though contained in small ounce vials, their color is marked—the *Rhus Toxicodendron*, for instance, being of a deep olive color, as is also the tincture of *Dulcamara*. *Ipecacuana*, *aconite*, *arnica*, *cantharides*, all give tinctures of decided color in these small vials. The *aconite*, indeed, I have used for patients, and find that it produces the same results that ordinarily follow the use of the saturated tincture. Having occasion to use tincture of chamomile, I had some made by a druggist, and filled one of the vials with it. The color of the homœopathic preparation was quite as marked as the other. The tincture of *china*, which being translated, means *cinchona*, is a good simple tincture of Peruvian bark.

The third set consists of much weaker preparations, and yet here it is noticeable that, excepting the carbonate of lime and the carbonate of baryta, *merc. solub.* stands highest in its proportion.

If an average is made of the per centages of these three analyses, we shall have this result: for the first 6.056, for the second .745, for the

third .250. In contrast with these figures, others may be put, showing the per centage of the drug which is left, in preparations made according to the directions of Hahnemann for potentizing medicines. The first dilution has in 100 parts 1 part of the drug. The second dilution has in 100 parts .1 part of the drug. The third has in every 100 parts, .0001 part of the drug. Beyond this it is not necessary to go; though every one remembers how much stress was, and still is, laid upon high potentizations, those who use the thirtieth dilution being considered very moderate. The two hundredth is much preferred by some, and yet the weakest preparation of these three classes, obtained from direct sources, is stronger than the second dilution.

It may be asked, how it is, that such an abandonment of "potentization" should have occurred among homœopathists themselves, for these drugs came from their pharmacutists, from the shops patronized by all the prominent men of that school in this city. The question can be answered only by referring to the positions which they now occupy. If these gentlemen are shown such proofs of the strength of these preparations as these analyses afford, or such as the very appearance of their tinctures gives, they will not for a moment deny that we are correct, or that there is anything in this which is inconsistent with homœopathy. They will say that they are *homœopathists*, but they are not *Hahnemannists*. O no! not they. How could one be so stupid as to make such a blunder. They believe in the doctrine, *similia similibus curanter*; but they do not find that potentization, as taught by Hahnemann, is borne out by experience. To be sure, this is no more than the whole medical profession has been saying ever since the absurd doctrine was propounded, and it is no more than common sense teaches; but if one suggests this to them, and congratulates them on their returning senses, he gets very little thanks for his trouble. The fact, however, of this entire change of position should be more generally known and appreciated by the profession than it is, so that we may not waste time in assailing a position which has been entirely abandoned. It is safe to attribute any supposed effect of a decillionth of a grain of charcoal to imagination, but it is not quite safe to attribute to the same influence the effects of five drops of saturated tincture of aconite. Under these circumstances it might happen that a homœopath and a physician would both treat a patient the same way, their only difference being in their process of reasoning. Both give quinine in intermittent fever; the homœopath because, as he alleges, it will produce

in a healthy person similar symptoms ; the physician for the reason that he knows it usually cures the disease ; not, as is slanderously reported, because he believes it will produce symptoms unlike intermittent fever. He is no *allopath*. It did in fact happen to a friend of mine to be asked to see a patient who was under the care of a homœopath, not in consultation with him, but because he was desired to give his opinion whether or not it was safe to trust the patient still longer under the treatment. The disease was typhoid fever, and he found *Spiritus Mindereri* and all the usual remedies in ordinary doses, the patient doing very well. He could not but say to the attendant, "If this is homœopathy I am a homœopath." To be sure the physician may write a prescription for *cinchona*, and the homœopath may write one for *china* ; or the one for *hydrargyri oxidi nigri*, and the other for *merc. solub.* ; one for *antimony*, and the other for *stibium*, but both mean the same thing, and the patient will receive the same drug.

It is a question of practical interest to the profession to ascertain what there is of good, if any, in homœopathy. Almost every "new school" enables us to gain some profitable suggestions, which repay the labor of sifting them out of a large mass of chaff. The Hahnemannists have tried experiments in the treatment of diseases with nothing which we should not have been justified in making, and they have thus taught us something in the natural history of disease. In their progress from infinitesimals to large doses, it has been necessary for them to conceal the change in their medicines, and therefore they have studied the art of giving medicines in the most agreeable, or in the least offensive form, and in this respect we can learn something from homœopathy. The old school of practitioners, who, when called to a patient's house, seemed to make it their first duty to fill it with eight-ounce vials, have not entirely passed away, neither have their abominably tasting compounds entirely disappeared. Their big bottles, their table spoonful doses, their nauseous mixtures, have driven, and still do drive, family after family to homœopaths, simply because it is not human nature to desire to drink such a mixture as tincture of aloes and assafoetida with castor oil and turpentine in equal parts, a wine glass full at a time, if almost tasteless water or a sweet powder will accomplish the same good. To doctors, even, when they fall sick, an agreeable draught is preferable to one the very thought of which stirs them to their lowest depths.

It is not necessary to point out the mode in which concentrated tinctures

can be made to supply the place of less powerful preparations. Neither is it necessary to do more than hint at the frequent desirableness of giving small doses often, rather than a single large draught. A few drops of aconite tincture, in water, is vastly pleasanter than even spiritus mindereri or sweet spirits of nitre. The dose of Norwood's veratrum viride is much pleasanter than infusion or even tincture of digitalis.

But the lesson is more important with reference to powders. For adults, solid substances can usually be given in pill form, but there is no necessity of rolling them in powdered aloes. To this day I cannot rid myself of the remembrance of the disgust with which I used to swallow pills so coated, and with difficulty convince myself that the druggists now use only liquorice or more tasteless powders. Still, for these pills we need not select the most bulky drugs. The active principles of plants, when isolated, aid us in diminishing our pills, and will still more when their powers and properties are fully tested.

Children, however, do not readily swallow pills, and agreeable powders are often a great desideratum while treating them. A child's life may depend upon his taking remedies willingly and without compulsion. Thorough trituration of the drug with sugar seems to accomplish this best, especially if, when it is practicable, the doses are divided, but repeated oftener. The homœopathic dispensaries direct that powders should be placed upon the tongue and allowed to dissolve, when they are to be washed down with a good draught of water. There is some philosophy in this, for the dissolving sugar first gives the impression to the nerves of taste, and the water washes down the balance almost untasted. In the minds of children, moreover the first taste seems to be associated with the fact of taking the powder, while the second and more disagreeable one is not remembered against the dosing. To avail one's self of this fact, it is necessary that the sugar should be reduced to an impalpable powder; otherwise the end is not obtained. If, for instance, ordinary crushed or granulated sugar is used, it will be found that it is not an actual powder, but a mass of more or less complete crystals. On mixing a powder with these it either falls to the bottom, or, clinging to the crystals, coats them over. In this condition the sugar is less readily dissolved than when in powder, and in addition, each crystal is covered on its outside with the drug, which is first dissolved and gives its taste to the whole mass. Here, then, is the advantage, and the only one, of the triturations recommended by Hahnemann.

SEGGESTIONS FOR FACILITATING THE EXPOSITION OF ARTERIES, AND THE APPLICATION OF THE LIGATURE—*By Wm. Hargrave, Professor of Surgery in Royal College of Surgeons, Ireland, etc.*—Some practitioners will consider it a useless question to ask, and a waste of letterpress to print, what is the best direction to be given to the incisions required for securing an artery? and, if possible, to lay down fixed principles for these operations. For some sessions past, in my lectures on operative surgery, I have always advocated and demonstrated to the class a different mode of proceeding from that laid down in books. Though so many works on surgery have issued of late from the press, this most important practical point seems to me not as yet definitively settled, as it is capable of being done, especially for the junior practitioner. The only author that I am aware of who has touched upon a change in this practice is Mr. Skey, which meets my full concurrence.

Most surgeons still cling to the rule of cutting parallel to the course of the artery, seldom or never deviating from it; and if they do, act doubtfully and with hesitation.

From an attentive consideration of this most practical proceeding, I would lay it down as a rule that the incisions parallel to the artery generally should be the exception, while incisions transverse or oblique to the vessel should almost always be the rule. By the adoption of the latter, the surgeon will be able to find the vessel with more ease and certainty to himself, and to encircle it with the ligature with greater prospect of success to the well-doing of the operation.

I am well aware that I am not advocating a totally new proceeding in practice, as Scarpa, Dupuytren, and Guthrie have advised it in some instances; and I have performed such an operation on the left common carotid with every facility to myself. My colleague, Mr. Porter, has also occasionally deviated from this practice. This question can be best met by stating the disadvantages of making the incisions parallel to the artery: 1st. The slightest deviation from its course will lead the surgeon astray, going either to the external or to the internal side of the vessel; and unless he corrects his mistake on the instant, the operation will be tedious and unsatisfactory, calling for the use of retractors, and requiring excessive manipulations of the wound to find the vessel, and may even fail *in toto*, as has occurred more than once in practice. 2d. If two vessels happen to run parallel to each other, as often occurs in the arm, and sometimes below Poupart's ligament, more difficulty will attend their being exposed, and

distinguished one from the other, than by the adoption of a different course to the incision. 3d. The operation does not appear to me to be facilitated by such a line of incision.

What advantages follow a transverse or oblique incision? 1st. No doubt exists but that the vessel will present itself in some part of the wound, and a retractor is seldom required. 2d. If two vessels run together, greater facility will attend the distinguishing of one from the other, and securing the artery which is the subject of the operation. 3d. It is an operation more generally fitted for the profession than the first one, as it does not require so much dexterity or great knowledge of anatomy. 4th. If much adipose substance exists, it will render the operation more satisfactory and certain.

It can be objected to the practice now advocated, that in some instances the muscles must be cut across. This matters but little; for, when the patient recovers, such are the compensating powers inherent in the animal economy, that no permanent injury will arise from such a lesion.

To enumerate the operations in which a transverse or oblique incision is valuable to expose an artery and to secure it, the following will prove its efficacy: 1st. The common carotid: it is only necessary to test this operation either on the dead or on the living, when the superiority of this practice will be admitted; and will permit the surgeon to insulate the artery in the readiest manner from the veins and nerves which runs so close and parallel to it; in fact, a free gaping wound is the result of the section of the sterno-mastoid muscle, and all the parts at the fundus of the wound are visible; it is an operation well adapted for children,* and those with short necks. 2d. The occipital artery, where it is uncovered by the mastoid muscle, or in the posterior third of its course, is most readily laid bare by an incision transverse to its course, or paralld to the posterior edge of that muscle in its third stage. 3d. The external maxillary, as it passes over the ramus of the jaw can be more readily exposed by an oblique incision than one that is made parallel to its course, and thus affords a ready facility for securing it. 4th. The lingual artery is also most effectively denuded by an incision oblique to its direction, which brings into view in their anatomical relations the digastric tendon, the lingual nerve, and then the artery; all three presenting nearly the same color, but practically distinguished from each other by their never-varying relations.

* See Quart. Journ. of Med. Sci. Aug. 1849, No. xv.

5th. The subclavian, immediately above the clavicle, is exposed by the incision being oblique, if not transverse, to the direction of the vessel.

6th. By dividing the pectoralis major muscle across—*i. e.*, from the clavicle to the axillary border *in the course of the artery*, one of the most valuable operations in surgery is given to the profession to secure this vessel, if wounded in any part of its course, from the clavicle to the axilla, and to tie it both above and below the injury. This valuable operation is an exception to the rules now laid down, being parallel to the course of the artery.

7th. An oblique incision for exposing the humeral artery will enable the surgeon more readily to find this vessel, and to distinguish between the frequent irregularities so often found in this portion of the vascular system, and which always greatly embarrass the operator.

8th. The same line of incision will facilitate the operations for the radial and ulnar arteries.

9th. The internal mammary, if it is considered advisable to secure it, will be most expeditiously laid bare by marking well the course of the artery and cutting parallel to the ribs in the intercostal space, and dividing the superimposed structures carefully, till the artery is exposed; this proceeding affords more ease in finding the vessel, and involves less risk of wounding the costal pleura than the operation proposed by M. Goyrand, which, from his directions, makes the incision run parallel to the course of the artery; if any deviation takes place, the artery is not easily found, and more danger is incurred in wounding the pleura costalis. (*Lancette Francaise*, 1834.)

10th. The facility with which the internal epigastric artery is exposed and secured by indicating its course, and dividing the coverings placed upon it, parallel to and above Poupart's ligament; or, in other words, transverse to the course of the vessel, leaves nothing to be desired in this operation.

11th. The external iliac, either by Abernethy's or Cooper's operation, is laid bare more or less transverse to its course; while the internal one is also similarly presented to the surgeon.

12th. The gluteal artery, as it lies external to the pelvic cavity, notwithstanding the great coverings it has from such thick and powerful muscles as the gluteals, can be always laid bare by attention to the following rules, which I might say are founded upon the immutable formation of the osseous system: mark the distance between the posterior-inferior spine of the ilium, and the external surface of the great trochanter, the subject having been previously placed upon the abdominal surface, the inferior extremity extended and rotated outwards, divide this space into three equal parts; at the point where the inner third meets the commencement of the middle third, the

artery will be found with mathematical accuracy. Next, as to the manner for exposing it; let this point be the centre of the incision, which is to be made transverse to the course of the muscles, when the artery will be found at a great depth in a space formed superiorly by the notch of the ilium, and subtended inferiorly by the pyriformis muscle; in this operation retractors are absolutely necessary. 13th. The common femoral, if considered advisable, can be exposed and secured with great facility immediately below Poupart's ligament by an incision parallel to it, when the artery can be insulated from the vein without any disturbance to it. My colleague in the School of Surgery, Mr. Porter, has performed this operation, and reports very favorably of the facility afforded by it. 14th. Superficial femoral artery: a certain obliquity to the incision for securing this artery in the first, second, and third stages of its course, will be the means of rendering the operation more perfect, as far as the exposure of the vessel is concerned in it. 15th. The anterior tibial: to bring into view the intermuscular space, at the bottom of which this vessel descends to the foot, a line parallel to the external edge of the tibialis anticus muscle, though oblique to the axis of the limb, is parallel to the course of the artery; hence it will be found more judicious as an operative proceeding to make it a little more oblique than is usually practiced, by which a greater certainty will be had of entering the intermuscular space, and then to find the artery. 16th. The artery on the dorsum of the foot, though the tendon of the *externus pollicis longus* indicates very accurately the course of the vessel, yet, as it occasionally runs more external to this tendon, by giving it a slight degree of obliquity, it will not only bring us into contact with the artery, but also enable us to be prepared for this deviation from the natural course of the vessel. 17th. Popliteal artery: an oblique incision downwards and inwards will permit the operator to expose the vessel, and to insulate it better from the accompanying nerve and vein, than when parallelism of the incision to the artery is made the rule for the operation. 18th. Posterior tibial artery: as regards the middle and inferior third of the leg, the same principle in the operative proceeding, so frequently inculcated in this communication, will render the proceeding simple, safe, and in most instances, expeditious. Should the surgeon be called on to cut down on the posterior tibial artery in the upper third of its course, by making his incision oblique, though the saphena minor vein and the communicans tibialis nerve will be divided as lying in the centre of the incision, still, this lesion will be more than compensated for by the

retraction of the gastrocnemius and solæus muscles, which must facilitate the exposure of the artery at so great a depth at which it lies in this situation from the surface.

In conclusion, to recapitulate the arteries on which this operation is of such utility : 1st, the temporal ; 2d, the occipital in its third stage ; 3d, external maxillary artery ; 4th, lingual ; 5th, carotid ; 6th, subclavian ; 7th, axillary ; 8th, brachial ; 9th, ulnar ; 10th, radial ; 11th, internal mammary ; 12th, internal epigastric ; 13th, external iliac artery ; 14th, internal iliac artery ; 15th, gluteal artery ; 16th, femoral artery ; 17th, popliteal artery ; 18th, anterior tibial artery ; 19th, posterior tibial artery ; 20th, dorsalis pedis artery.—*Dublin Medical Press, Feb. 2, 1853.*

MODE OF REDUCING DISLOCATION OF THE THUMB.—By John Doe, M. D., of Cabot, Vermont.—Having had occasion to reduce a dislocation of the thumb several times, when the first phalanx is thrown upon the dorsum of the metacarpal bone, and having never encountered any particular difficulty in effecting it, it has been a cause of surprise to me that the method I am now to describe is not more generally known. There is not an English writer on surgery, from Sir A. Cooper to Ferguson, nor an American one, so far as I know, that alludes to this method ; and if we are to judge from an article by M. Demarquay, published in the *Medical News*, of May, 1852, and accredited to the *Bulletin de Thérapeutique*, it might well be presumed that the French are also innocent of practising or teaching it.

The common method of reducing this luxation is, as is well known, to flex the thumb, fasten upon it a tape with a clove nitch, and with this make extension. If this, or more violent means do not succeed, we are directed either to abandon the attempt at reduction, or what is still worse, effect it by making incision, or by amputation of the end of the metacarpal bone. Extension has sometimes been persevered in to such a degree that the soft parts have been lacerated, or the thumb actually torn off ; and in Braithwaite's *Retrospect*, part xxii., M. Blandin describes a forceps well calculated to do this.

In this dislocation, the phalangeal end of the metacarpus projects into the palmar surface of the hand, forcing itself between and through the flexor muscles of the thumb, which form a loop around the head of the bone. Extension made upon the thumb makes this loop more tense ; and

as the metacarpal end of the first phalanx is broad and considerably flattened on its palmar aspect, it must be apparent at once that the difficulty of reduction is directly as the amount of extension. There is good reason to believe that extension would never succeed in these cases without rotation. The principal indication in treatment here, is to relax the flexors forming the loop, so that the end of the phalanx can be pushed forward into the loop, and by carrying the muscles forward with it, disengage the head of the metacarpus. This can be done in the following manner :—

Having previously warmed the hand, if cold, in warm water, the surgeon should seat himself by the patient, facing in the same direction, and upon the same side with the injured thumb, and place the hand upon his knee. Tip back the thumb upon the dorsum of the metacarpus to more than a right angle, or so as to form a slightly acute angle with the latter bone; place both index fingers against the ball of the thumb, and the ends of both thumbs against the dorsum of the disarticulated end of the phalanx; now by pushing forward forcibly, get steadily against the phalangeal bone with both thumbs. Reduction will generally be effected on the first trial, and almost instantly.

The writer claims not the honor of originating this method, but supposes it to be adopted by many surgeons in this country.

VERATRUM VIRIDE.—SEX. SYST. POLYGAMIA, MONÆCIA, (RHIZOMA.)

By Prof. C. K. Winston, M. D., of Nashville, Tenn. (Paper read before the Tennessee State Medical Society.)

The *Veratrum Viride*, U. S., (secondary list) according to J. Carson, is known in the United States as *American Hellebore*, *Swamp Hellebore*, *Indian Polk*, and *Itch Weed*. It has a perennial, thick, fleshy root, tunicated at top, the lower part solid, and sending off numerous white or light yellow radicles. The stem is annual, from two to three feet high, and pubescent. Leaves at base six inches to a foot long, broad, oval, nerved acuminate, of a deep green color, and pubescent; those on the stem narrower, and at the summit, bractæform. Flowers in panicles, terminal, and of a greenish-yellow tint. The calix is wanting, petals six, stamens six, pistil a rudiment, (Wildenow), germs three, when not rudimentary, on the lower portion of the panicle.

It is found in various portions of the United States, early in March, along the banks of the water courses, in meadows and swampy places, and

belongs to the same order of plant as the *colchicum autumnale*, *sabidilla*, etc., etc.

The root is the only part officinal, though the whole plant has a burning acrid taste, which is very persistent, and followed by a copious secretion from the mucous membrane. Like *veratrum album*, when powdered and snuffed into the nose, it produces a violent sternutatory effect. The profession is indebted to the researches of Mr. Henry Worthington for the composition of the root of *veratrum viride*, which may be found in the *American Journal of Pharmacy*, volume 10, page 97. He found it to contain gum, starch, sugar, bitter extractive, fixed oily matter, coloring matter, gallic acid, an alkaloid identical with the *veratria*, lignin, and salts of lime and potassa.

Experiments made with *veratrum viride* by Mr. Worthington, Drs. Osgood, Ware, Norwood and others, prove conclusively, that it is an arterial sedative of high power. Its action is prompt, quite persistent, and so far as observation has gone, attended with no danger when given in the proper condition; differing in this respect materially, from *colchicum*, *digitalis*, etc., etc. In suitable doses it soon brings on nausea, with frequent retchings and vomiting. There is also copious secretion from the bronchial mucous membrane—sometimes free diaphoresis, at others diuresis, and occasionally free discharges from the bowels. One of the other of these effects is apt to continue for several hours, at the same time that the pulsations of the heart are greatly lessened, and the force of the circulation weakened.

The most remarkable, and, at the same time, the most important physiological effect of *veratrum viride*, is the reduction of the heart's action, and that too with entire safety, (so far as I am informed) to the patient. But few articles of the *Materia Medica* possess this power. *Digitalis* may do it, but then the tendency of the article to cumulate makes it, in order to gain its full effect, quite dangerous. *Colchicum* and tartar emetic may do the same thing, but they frequently produce unpleasant effects, such as excessive purging, inflammation, ulceration, etc., etc. The pulse, however may be reduced by *veratrum viride*, from 130 to 40 beats in the minute, with entire safety to the patient, and without the least injury to the circulatory or nervous system. This can be done with no other remedy, and it hence follows that *veratrum* is a remedy of the first importance.

At least nine-tenths of mankind die of inflammatory disease. Arterial

excitement is one of the most invariable elements of inflammation, and one of the most important objects in the treatment of it is to subdue this excitement. This can be done in several ways; by bleeding—by purging—by nauseants—by starvation, etc., etc. But by all of these methods we necessarily exhaust the patient, and endanger the recuperative powers. These remedies, moreover, when applied by the most skillful hands, not unfrequently fail. Who, in the treatment of grave cases of pneumonia, pleurisy, bronchitis, rheumatism, etc., has not watched the effects of the lancet, tartar emetic, and the like, with painful solicitude? And who has not often watched in vain? The pulse, that harbinger of health or disease, has beat on the even tenor of its way, as if to mock the best directed measures. What physician has not sighed for just such arterial sedation as that produced by veratrum? With this remedy in hand, we may say to the ebbing crimson tide, as Xerxes said to the ocean, but not in vain, “thus far mayest thou come, but here shall thy proud waves be stayed.” The heart obeys the mystic voice, and there is a great calm. Not such a calm as arises from a violent subduction of the vital powers, but a calm persuaded rather than conquered. And this fact, in my estimation, constitutes the great superiority of veratrum over any other arterial sedative.

It is peculiarly adapted to the treatment of pleurisy, pneumonia, rheumatism and bronchitis. In these conditions, if its advocates are not mistaken, it is almost as effective as quinine in malarial fevers. And in the phlegmasiæ generally, it is regarded as more or less valuable. In all conditions to which it is applicable, much will depend upon the time in each case, at which its use has been commenced. If deferred until actual organic lesion has supervened, its benefits are equivocal, or at least not so obviously curative, as when given at an earlier stage. It may not be out of the way, also, for me to suggest that it is not so valuable in the treatment of inflammatory diseases, arising from a specific virus.

The preparation generally used is the tincture. That prepared by Dr. Norwood is commonly preferred, though I do not think it possesses any advantage over an ordinary well prepared tincture. The dose for an adult is from 5 to 6 drops, in a little water, every 2 or 3 hours, increasing 2 or 3 drops upon each repetition, until some of the characteristic physiological effects are produced. It is then to be withdrawn until all the characteristic effects pass off, which will ordinarily occur at the end of 8 or 10 hours. It may then be resumed if necessary. In other words, it should

be repeated until the heart's action is reduced, or until the stomach is nauseated. Most generally both these effects occur, but this is not always the case, and nurses should be instructed accordingly, or otherwise injury might result.

Several peculiarities in the effects of *veratrum*, though but partially sustained by experience, have been suggested. First, that it does not act so promptly upon children as adult subjects, or at least, that a larger comparative dose is required to produce a given effect, and that it is less apt to excite nausea. Second, that it is not applicable in inflammatory disease when there is sickness at the stomach. Third, that it is an abortive. This last point, first suggested, I believe, in an inaugural thesis by Dr. Brown, of Georgia, and published in the *Nashville Journal of Medicine and Surgery*, deserves special attention. He says that abortion does not follow immediately upon its use, but that after the lapse of a few days it is sure to follow. Now, if this be true, it is of the highest importance that it should be known. Upon the first view, on account of its powerful influence on the circulation, it may seem philosophic, but when it is remembered that the fetal circulation is but slightly, if at all, affected by any disturbance of the maternal, no special reason appears why it should prove abortive, and the fact remains to be established by experience. Dr. Newsom, of Georgia, informed me that he had called in question this opinion of Dr. Brown, and that he had exhibited it in cases of pregnancy, with the happiest effects. He says that he has been in the habit of using it on all occasions, in every form of inflammatory disease, and had never seen any ill effects from it. To the same extent is the testimony of several of the best practitioners of the South. Dr. Maddin, who graduated last winter in the Medical Department of the University of Nashville, informed me that a lady, in Huntsville, Alabama, I believe, died soon after taking the second dose, but I do not think it sufficiently appears that she was killed by the *veratrum*. Upon the whole, I am of the opinion that no remedy of the *materia medica* of like powers, is by any means so free from danger.

It may not be uninteresting, in this connection, to detail a few cases illustrative of the views here set forth.

No. 1. This was a negro girl belonging to Mrs. Horton, of this vicinity, aged 17 years. I found her laboring under all the symptoms of pleuropneumonia. She was successively bled, cupped, tartarized, blistered, etc., etc., with but slight benefit. Believing that she would soon die, unless

the arterial excitement could be subdued, I gave 12 drops of the tincture of veratrum. In 10 or 15 minutes there was a profuse secretion of saliva, in a half hour she became violently sick at the stomach, and the pulse was reduced from 130 to 60 per minute. The retching was very distressing, so much so, that I became alarmed. I stayed with her two hours, at the end of which time the sickness had pretty much subsided, and was followed by a copious bronchial secretion. This was about 12 o'clock at night. When I returned the next morning, the sickness was entirely gone, and the pulse had recovered its former velocity. The veratrum was repeated in 8 drop doses every two hours; the second portion produced the desired effect, when it was withheld. From this time the patient rapidly recovered, it only being necessary to repeat the medicine on but one other occasion.

No. 2. A young man, aged 25 years, named Mahon, who worked in the Nashville manufactory, was seized with pneumonia. He sent for Prof. Watson, who could not be found. Waited for him two days, when I saw him. Gave two drops of veratrum, repeated every two hours, increasing three drops upon each repetition. When I returned I found him exceedingly sick, (and having taken the third potion,) vomiting every few minutes, and throwing off large quantities of mucous. Such was the effect of the first resort to the veratrum, that it was unnecessary to repeat it, or to use any other remedy. After the nausea subsided, a bountiful diaphoresis occurring in connection with free expectoration, a cure was speedily effected.

No. 3. Mr. Mosely, aged about 60 years, was seized with pneumonia. Gave the veratrum, as in the former case, with like results, it only being necessary to repeat it a second time, when he was relieved.

No. 4. W. Thomas, aged 25 years, was attacked with acute rheumatism—had used the lancet, colchicum, opium, lemonade, etc., etc., with but little benefit—gave the veratrum with the highest success. The pain in this case was excessive. As soon, however, as he was brought under the influence of the remedy, a most soothing anodyne effect was induced, with copious diaphoresis. It was necessary to repeat the veratrum for three successive days, when he was relieved.

No. 5. A little child of Mr. Jones, seen in company with Dr. J. S. Young, of this city. Cerebral inflammation of several days standing—advised veratrum in two drop doses—no effect—it may have been too late.

No. 6. A negro boy belonging to F. R. Barnes, aged 22 years. Pneu-

monia—treated him several days with the usual remedies—could not subdue the pulse with the lancet, although resorted to several times—could not nauseate the stomach with tartar. Gave veratrum in doses of 16 drops repeated every two hours on three successive days, without the slightest effect. Patient recovered, as I think, from the benefits of a copious bleeding, resorted to on the 7th day.

No. 7. The last case, though many others might be detailed, was that of a child, aged 18 months, of J. O. Wright. Pneumonia—used tartar, warm bath, calomel, etc. Gave one drop of veratrum—waited two hours, gave three drops. Patient became calm and slept. The pulse was reduced from 140 to 40 per minute. The narcotic effect in this case was greater than in any I have observed. In fact, it was so great, and the pulse so much reduced, that I became alarmed, and watched it with no ordinary degree of solicitude. In due time, however, the pulse rallied, and in 8 or 10 hours the effects had entirely passed off—the remedy was repeated in 2 drop doses on two other occasions. The child recovered rapidly.

This is one of the cases going to show that a profound impression may be made upon the circulation without affecting the stomach; there was not the least nausea, and if I am not mistaken, this is more common with children than adults.

The effects of veratrum, as above recited, are corroborated by some of the most eminent physicians of the South West. As to whether the remedy will be found to be equally effective in higher latitudes, and upon more extensive employment, remains to be established. If so, I shall not hesitate to regard the discovery of the peculiar physiological effects of veratrum viride, as second to none which has crowned the investigations of medical men, in this department of medical science.—*Nashville Journal of Medicine and Surgery*.

ON THE TREATMENT OF PNEUMONIA AND PLEURISY.—By Dr. Neimeyer, Professor of Clinical Medicine in Greifswalde.—(Prager Vierteljahrsschrift, 1855. Band iv. p. 121.) Professor Neimeyer is much opposed to the employment of general venesection in pneumonia and pleurisy, and only uses it exceptionally with a view to prevent impending suffocation, and to facilitate the reflux of the blood from the brain, but not for the purpose of arresting the inflammation. He agrees with the observation of Dieck, that the convalescence is more rapid in those cases that have been treated without than those which have been treated with

venesection; and he explains the fact by the increase of fibrin, and diminution in the amount of red corpuscles, induced by the venesection.

The treatment adopted by Professor Niemeyer consists in the application of compresses wrung out in cold water over the affected part of the thorax, and their renewal as often as they become warm. The great relief experienced by the patient is a sufficient guarantee that the repetition of the application will be carefully attended to. The only internal remedy employed was nitre, in doses of two drachms in the course of twenty-four hours. Although employed at different ages, and in various forms of the disease, no metastasis or other evil consequences have ever been noticed by the author. He has seen persons attacked with very tumultuous symptoms, enabled by this treatment to return to their occupation on the seventh day after seizure. Professor Niemeyer recommends an early exhibition of steel in the convalescence from the diseases under consideration.

ALKALINE TREATMENT IN RHEUMATISM.—The (Burlington) Medical and Surgical Reporter gives a table of twenty-six cases of acute rheumatism treated by the alkaline method, in New York Hospital, under the care of Dr. John H. Griscom. The average time that the patients were under treatment was about thirteen days, and the whole duration of the attack twenty-one days. The treatment consisted in the administration of super-tartrate of potassa and soda every hour, and the application of an alkaline and opiate lotion to the swelled joints. As the urine became less acid, corresponding improvement in the symptoms was noticed.

URANIUM.—This metal, which was previously only known as a black powder or in the form of small scales, Peligot has recently obtained in a reguline form, by heating the green chloride of uranium with sodium, in a porcelain crucible, to a white heat. The uranium thus prepared is of the color of iron or nickel, to a certain extent malleable, hard, but less so than steel, tarnishes yellowish in the air, burns rapidly when heated to redness, and becomes covered with a voluminous black oxide. Its specific gravity is 18.4, thus nearly as high as gold.

PREPARATION OF PURE CAUSTIC LIME.—As the ordinary lime is constantly contaminated with magnesia, iron, etc., it is very desirable to be able to prepare pure lime from marble. It is, however, well known that this is a very difficult operation on a small scale. To remove this difficulty,

Borsareli recommends that a crucible having a hole one inch broad at its bottom should be employed, which, when filled with pieces of marble, and heated strongly for about an hour and a half in a reverberatory furnace, entirely converts the marble into a caustic condition.

NEW METHOD OF MAKING SULPHURIC ACID.—According to Kuhlmann, when oil of turpentine is placed in contact with an aqueous solution of sulphurous acid, and exposed to the air for some days, the mixture becomes heated, and its temperature rises 90° Fahr., and even higher; the odor of sulphurous acid quickly disappears, after which, the ordinary temperature is restored. By this reaction, for which, as it appears, the influence of the sun's rays is required, sulphuric acid is formed at the cost of the oxygen of the ozonized oil of turpentine. The ozonized oil exhibits the same oxidizing properties towards hyposulphites, arsenious acid, etc.

NEW METHOD OF FORMING ETHER.—When dry oxide of silver is treated with an equivalent quantity of iodide of ethyl, a reaction at once ensues, and there results iodide of silver and ether. This reaction is best conducted in a sealed glass globe which dips in cold water. Without this precaution the globe breaks, from the violent evolution of heat. In the cold, this double decomposition proceeds so slowly, that from one to two days is required to convert the whole of the iodide of ethyl into ether. The ether separated by distillation in a water bath should be again treated with a small quantity of oxide of silver, to remove the last trace of iodide of ethyl.

The same reaction takes place with iodide of methyl and oxide of silver.

THE QUANTITATIVE ESTIMATION OF CHLORINE.—Wicke found that when one ounce of ordinary chlorine-water was mixed with 8 grains of hyposulphite of soda in solution, the vessel closed and warmed for a few minutes, that the odor of the chlorine disappeared. He, therefore, proposes to employ this agent for the estimation of free chlorine. To obtain accurate results after the odor has disappeared, he adds a few drops of muriatic acid to the liquid, heats to the boiling point to decompose the excess of hyposulphite of soda, filters, and then determines the sulphuric acid in the filtrate as sulphate of baryta. Each equivalent of sulphuric acid corresponds to two equivalents of chlorine. He finds this method gives very accurate results.

ANTIDOTE TO STRYCHNINE.—Dr. Pindell states that fat has the property of preventing the poisonous action of strychnine. He administered to dogs, eleven times, strychnine alone, and, nine times, that substance mixed with fat. In the former cases, all the dogs died; in the latter, although the doses were larger, the dogs remained unhurt. This marvelous statement, of course, requires corroboration.

A NEW ALLOY RESEMBLING GOLD.—For some time a new alloy has been employed in Paris for various purposes, which resembles gold in the highest degree. It consists, according to an analysis made at the Royal Industrial Institution of Berlin, of 90 parts of copper and 10 parts of zinc.

THE USE OF GLYCERINE FOR THE PRESERVATION OF ORGANIC BODIES.—Luton states that animal and vegetable substances may be kept for a long period perfectly free from decomposition when immersed in glycerine. He also finds that it is a good antiseptic agent for injecting dead bodies.

POISONING BY CHLOROFORM.—The most extraordinary overdose of chloroform yet known, was wilfully swallowed by a patient recently in London. The man drank about four ounces at one draught! Wild intoxication, followed by profound insensibility, ensued; but after various relapses and accidents, he is now quite well!

REMARKABLE CASE.—Mrs. Julia Syles, wife of John Syles, of Blackstone, died on the 14th ult., of dropsy, from which she had suffered for five years. During that time she had been tapped upwards of one hundred and forty times, and more than three thousand pounds of water were extracted.

TINCTURE OF MASTIC AS A HÆMOSTATIC.—It is stated in a recent number of Smit's Jahrbucher, that Dr. Frankl has found the tincture of mastic an excellent hæmostatic. He employs it in epistaxis, and in troublesome bleeding from leech-bites. It is applied to the points whence the blood issues, by means of a camel's-hair pencil. Terzer, a dentist of Vienna, is also reported to have used it successfully in hemorrhage following the extraction of teeth.—*Association Medical Journal*, Jan. 14, 1853.

NEW ORLEANS

MEDICAL NEWS AND HOSPITAL GAZETTE.

VOL. III.

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NO. X

INTRODUCTORY LECTURE,

Delivered at the Opening of the New Orleans School of Medicine, on the 17th Nov., '56.

By E. D. FENNER, M. D., Professor of Theory and Practice of Medicine.

(Published by request of the Class.)

CORRESPONDENCE.

NEW ORLEANS, November 18th, 1856.

Dear Sir:—At a meeting of the Medical Students composing the class now attending the Lectures of the New Orleans School of Medicine, held at the College to-day, the undersigned were appointed a Committee to request of you a copy of your Introductory Lecture for publication.

Sincerely hoping, sir, that you will accept this testimonial of our high esteem, and that you will comply with our request, we remain,

Very respectfully,

Your friends, etc.,

C. L. EVANS,

H. I. MEANS,

SAMUEL B. FLUITT.

To E. D. FENNER, M. D.,

Professor of Theory and Practice, New Orleans School of Medicine.

NEW ORLEANS, November 19th, 1856.

Gentlemen:—I have the honor to acknowledge your kind favor of the 18th instant, requesting a copy of my Introductory Lecture, for publication.

I beg leave, through you, to assure the Medical Class, that this unexpected compliment is duly appreciated, and that it will serve as an additional stimulus to my efforts to merit their further approbation. Your request is granted, and I have only to regret that my Address is not more deserving of your notice.

Sincerely hoping, gentlemen, that our mutual efforts to establish and sustain the character of the New Orleans School of Medicine, may prove entirely successful, and assuring you that no exertion will be spared on the

part of myself and colleagues to advance you in your professional studies,
I have the honor to subscribe myself,

Very respectfully, your ob'dt serv't,

E. D. FENNER.

To Messrs. C. L. EVANS, H. I. MEANS, and SAMUEL B. FLUITT.

We are assembled, gentlemen, to inaugurate an Institution which, it is fondly hoped, will prove an ornament to our City, an honor to our State, and a benefit to all who may come within the range of its influence.

We come to open a *New Temple*, reared by the energy of *individual enterprise*, and to consecrate it to the cultivation of the noblest and most ancient of Arts and Sciences: an Art that was called into requisition when sickness and pain first touched the sensitive frame of man; a Science that dives into the mysteries of Life and Organization, and seeks a remedy for every disease that affects our race.

It has been truly said by a recent American author, that "To the initiated, Medicine is something more than a profession. It is a world within itself. It has its history, its philosophy, its politics, its literature, of which the world at large knows nothing. It has its organizations and institutions, its ranks and grades of honor. It has its subsidiary arts and occupations. It has its polemics and discussions, not always amenable to logic or to the learning of the schools. In ethics, traditions, and superstitions, it is older than the Church. In use before the civil law, it recognizes no arbitrary enactments. Nature is its only court of equity. And who of us shall forget its ever-living charities; its moving scenes of joy and sadness; its many sunny aspects; its benignant, ennobling, liberalizing influences, which few beyond our own circle can properly appreciate, and none so well understand as we ourselves?"*

In ancient Greece, the Temples of Esculapius were located on the most salubrious spots that could be found, amid shady groves and perennial fountains. Those Temples served the double purpose of medical school and hospital; and there the sick went or were carried to consult the Oracle, or to be nursed and treated by the Priests. All the medical knowledge of the time was concentrated in those institutions, and it was not customary for physicians to attend the sick at their homes. But in our *fast age*, when man is so busily engaged in the pursuit of wealth, pleasure, and the varied objects of ambition, that he cannot spare the time requisite for the due repose of his over-worked system, or to attend to the complaints of his

*Dr. John Watson, of New York.

suffering organs; when, although medical aid may be obtained at almost every street corner, he madly rushes upon destruction, regardless of the warnings of nature, we find hospitals for the sick, and institutions for medical instruction, located in the midst of cities, with more regard to convenience than to salubrity.

Whilst it is certainly desirable that hospitals should be placed in the healthiest localities, it is equally important that due regard should be had to convenience and accessibility; otherwise, they would fail in their object in cases of serious accident calling for immediate surgical aid, and in many cases of disease which cannot be removed far from the place of attack without greatly increasing the impending danger. But since hospitals have always afforded the best opportunities for the study of disease and are now considered indispensably necessary to thorough practical instruction, it is highly important that medical schools should be located as near them as possible, so as to have command of these advantages. It is in hospitals that we find collected the greatest amount and variety of disease and injury; there we have entire control of the patient and his treatment; and, when the great Conqueror has claimed his victim, in spite of all our science and skill, it is there that we are allowed to pursue our investigations *after* death, for the benefit of the living.

In view of these advantages, we have established our Institution near the great Charity Hospital, where may generally be seen a greater variety of disease and injuries, and upon a greater variety of races, than can be seen in any hospital, perhaps, in the world. But this Institution is of special importance to the Southern Medical Student, on account of its presenting the very types and varieties of disease he will meet with when he goes into practice.

The opening of a new Medical College I deem a fit occasion to present to my hearers a brief review of the rise and progress of medical science, literature and institutions, in this country, from the period of our Colonial history, down to the present time. The record will show that for upwards of a century past, America could boast of physicians who rivalled the first men of Europe in their discoveries of new and valuable remedies, and their improvements of practical medicine and surgery.

In 1721, the practice of inoculating for smallpox was commenced in Boston, by Dr. Zabdiel Boylston, only two months after the same great improvement had been introduced into England from Turkey, by the celebrated Lady Mary Wortley Montague, and without any knowledge of this

fact. To Dr. Cotton Mather, a Clergyman of Boston, belongs the honor of having first recommended it. Having read, in the transactions of the Royal Society of London, an account of a new mode of mitigating the violence of the disease by inoculation, as practiced in Turkey, he communicated it to the physicians of Boston, and urged their adoption of it. It was unanimously opposed by the faculty, with the exception of the single individual above named. Dr. Boylston, with the confidence of an honest and enlightened mind, and the courage of a true medical hero, resolved to try the experiment, and commenced his operations upon his own children and servants. The first experiments of Dr. Boylston were made on the 27th June, 1721, on his own son, thirteen years of age, and two blacks in his own family, and in all with success. During the prevalence of smallpox in that and the following year, he inoculated with his own hand 247 persons, of both sexes, from nine months to sixty-seven years of age. 39 were inoculated by other physicians, after the violent opposition had somewhat subsided, making, in all, 286 cases, of whom only 6 died.

During the same period, 5,759 had taken smallpox in the natural way, of whom 844 died.

The world was indebted to two other American physicians for the greatest improvement ever made in the preparation of the system for inoculation. This was by the administration of calomel. The credit of this practice is due to Dr. Thomas, of Virginia, and Dr. Munson, of Long Island, by whom it was established in 1745.

Although the whole business of inoculation has been long since entirely superceded by the discovery of *vaccination* by the immortal Jenner, we can only realize its importance, by referring to the great mortality caused by smallpox in former times. In a paper published in the Philosophical Transactions for 1765, by Dr. Benjamin Gale, of Connecticut, it is stated that the deaths from natural smallpox, before inoculation was introduced into New England, averaged 1 in 7 or 8; when inoculation was introduced, the deaths amounted to 1 in 30; by improvements and proper precautions they were reduced to 1 in 80 to 100; and finally, by preparing the system by the previous use of mercury, the deaths were only 1 in 800 or 1000.

It is gratifying to know, that although opposed and slandered at home, the eminent Dr. Boylston was appreciated abroad. In 1725, he visited England, and was received with the highest favor and attention by the most distinguished characters in the nation, and even by Royalty itself. He was elected a Fellow of the Royal Society, being the first instance in which that honor was conferred upon an American.

Although the physicians in the colonies generally followed the prevalent practice of the mother country, yet they are entitled to the credit of originating some modes of practice of great value. The most important of these was the use of mercury in the treatment of inflammatory complaints. This practice took its origin as far back as 1736, and the credit of originality is generally conceded to Dr. Douglass, of Boston, by whom it was used in the angina maligna, which prevailed extensively over the Colonies at that period and committed the most dreadful ravages. By Dr. James Ogden, a physician of Long Island, this practice was extensively applied in the same disease about the year 1749. The preparation used was calomel. In consequence of the success which attended the use of this remedy in this disease, it was shortly afterwards resorted to in other inflammatory complaints; and about the middle of the last century, it was in common use in this country, in pleurisy, pneumonia, rheumatism, and others of the phlegmasiæ.

The late Dr. John B. Beck, of New York, from whom I have obtained these interesting historical facts, says: "he is aware that the credit of this practice is claimed elsewhere; but there can be no doubt that, in its origin, it is *exclusively American*, and that to colonial physicians the world is indebted for one of the greatest improvements ever made in practical medicine." Dr. John Armstrong, in his work on Typhus, gives the sole credit of this practice to Dr. Robert Hamilton, of Lynn-Regis; but Dr. Beck shows conclusively the incorrectness of this statement. "From the account of Dr. Hamilton himself, it appears, that his attention was not called to the practice until the year 1764; whereas it had been in very general use in this country many years previous."

For the thorough investigation, as well as the sound and original views which they advanced in relation to the pathology and treatment of that acute, and now well-known disease, *croup*, our colonial physicians are entitled to the highest applause. To Dr. Home, of Edinburg, has generally been conceded the credit of giving the first full description of this disease. This appeared in 1765. Between the years 1770 and 1781, in this country, Drs. Rush, Bard, Chalmers, Middleton and Bayley, all published in relation to it, and by them, especially the two latter, more correct views were enforced than had been entertained by Dr. Home and others. Contrary to the opinion of Dr. Home, that the secretion of mucus on the inside of the trachea was the *cause* of the disease, Dr. Bayley established the fact that the disease was an inflammation of the mucus membrane of the tra-

chea, and that the effusion and false membrane were the consequences of this inflammation. Blood-letting *ad deliquium*—the free use of tartar emetic, at first to produce vomiting, and then to keep up nausea, together with the free use of calomel, were all originally recommended by them, although the credit of every one of them has since been claimed by others. Dr. Beck gives the following as a sample of the manner in which practices originating in this country, are appropriated abroad, not from design, but ignorance. “Dr. Stokes, in his recent and invaluable treatise on Diseases of the Chest, in speaking of tartar emetic in croup, says: ‘For the introduction of this inestimable remedy in the treatment of croup, the science is indebted to Dr. Cheyne, who recommended it in his essay on *Cynanche Trachealis*, published in 1801; and it is no small evidence in its favor, that in the year 1832, after an experience greater than falls to the lot of most men, the opinions of this philosophical investigator of disease, have remained unaltered.’ Now, the fact is, our Dr. Bayley recommended and used the same remedy, in the same way, and with the same objects in view, a quarter of a century before.”

But, gentlemen, notwithstanding the brilliant achievements of American physicians I have already pointed out, if we may believe the authority of Dr. Douglass, who wrote about the year 1753, and of William Smith, the historian of New York, the general character of the profession could not have been very elevated at that day, and quackery must have flourished in great perfection. Dr. Douglass speaks of it in the following terms: “In general, the physical practice in our colonies is so perniciously bad, that, excepting in surgery, and some very acute cases, it is better to let nature, under a proper regimen, take her course, than to trust to the honesty and sagacity of the practitioner. Our American practitioners are so rash and officious, the saying in the *Apocrypha*, may with much propriety be applied to them: ‘*He that sinneth before his Maker, let him fall into the hands of the physician.*’” The following remarks of the same author will afford a clue to this miserable state of things: “Our practitioners deal much in quackery and quackish medicines, as requiring no labor of thought or composition, and highly recommended in the London quack bills, (in which all the reading of many of our practitioners consists,) inadvertently encouraged by patents for the benefit of certain fees to some offices, but to the very great damage of the subject.” And further, he says: “When I first arrived in New England, I asked a most noted and facetious practitioner, what was their general method of practice? He told me their practice was very uniform: bleeding, vomiting, blistering, purging, anodynes, etc.; if the illness continued, there was *repetendi*, and finally *murderandi*; nature was never to be consulted or allowed to have any concern in the affair.”

Smith, who wrote in 1758, says: “Few physicians among us are emi-

ment for their skill; quacks abound like locusts in Egypt, and too many have been recommended to full practice and profitable subsistence. This is the less to be wondered at, as the profession is under no kind of regulation. Loud as the call is, to our shame be it remembered, we have no law to protect the lives of the King's subjects from the malpractice of pretenders. Any man, at his pleasure, sets up for physician, apothecary, or surgeon. No candidates are either examined or licensed."

A hundred years have passed since this period, and the thirteen colonies have grown up to be one of the most powerful nations in the world, but quackery still abounds all over the land, fostered and sustained in its nefarious impositions on the credulity of mankind by that most powerful of all engines, the public Press.

Time is not allowed me on this occasion, gentlemen, to notice in detail the literary productions of all the distinguished Northern physicians of that day, such as Colden, Bard, Jones, Middleton, Bayley, Bond, Shippen and Morgan, but as the last named came in conflict with the celebrated John Hunter, upon a most interesting question, I cannot forbear saying a word or two in defence of our American author.

Dr. John Morgan, of Philadelphia, after studying medicine at home, went to Edinburgh, where he received the Doctor's Degree, on which occasion he published an elaborate thesis on *The Formation of Pus*. In this dissertation he maintained the doctrine that *pus is a secretion*, prepared by a peculiar action of the secretory vessels of the part. The credit of originality as regards this doctrine, says Dr. Beck, has generally been awarded to the celebrated John Hunter. The evidence, however, appears to be conclusive, that he was anticipated by Dr. Morgan. Dr. James Curry, lecturer at Guy's Hospital, also gives the credit of priority to Dr. Morgan, and adds—"I could not avoid giving that merit to Dr. Morgan, who discussed the question with great ingenuity in his Inaugural Dissertation in 1763; whilst I could find no proof that Mr. Hunter had taught, or even adopted such an opinion until a considerably later period."

After receiving his degree at Edinburgh, Dr. Morgan travelled over the Continent in search of knowledge, and was every where received with the highest honor. As a proof of his high standing abroad, it is only necessary to state that when he returned home in 1765, he was a Fellow of the Royal Society of London, Corresponding member of the Royal Academy of Surgery of Paris, and Licentiate of the Royal Colleges of Physicians of London and Edinburgh. This is the man who aided in starting the first Medical College in America, as I shall presently show more fully. It should be a matter of just pride to us all, gentlemen, to revive the recol-

lection of our colonial physicians who were able to compete successfully with the first men of Europe in discussing great questions of medical science. I will give one more instance of the same kind, and it affords me pleasure to trace him to the sunny South. In 1768, Dr. Lionel Chalmers, of Charleston, South Carolina, published "*An Essay on Fevers*," in which he entered into an extensive discussion of the theory of febrile diseases, and proposed a new method of treating them. Contrary to the prevalent humoral pathology of the time, Dr. Chalmers, endeavors to show that the cause of fever is not to be sought for in the fluids, but in the solids, and he considers the immediate cause to be "a spasmodic constriction of the arteries and other muscular membranes." Now this is the doctrine taught by the celebrated Cullen, and was published by Dr. Chalmers several years before the "*First Lines*" of Cullen, were presented to the public.

I come now, gentlemen, to the distinguished physicians of the South who flourished in the days of our colonial existence.

According to the researches of Dr. Beck into the medical history of those days, Medicine appears to have been cultivated with much more success in the middle and southern colonies, than in the eastern. This may be accounted for, he says, by the fact that the former enjoyed the services of several foreign physicians who had early emigrated thither, enriched by the best medical education that Europe could afford. But this was likewise the case at the North. In those days it was more common in the South to send their young men to foreign Universities to complete their medical studies. In addition to all this, we learn that a taste for researches in natural history began to develop itself much sooner in some of the Southern colonies, and doubtless produced a salutary effect in spreading the influence of liberal sentiments. To these causes is to be attributed the early superiority of the Southern colonies more especially.

Of the colonial physicians, none were more active or distinguished than those of South Carolina. Dr. Ramsay, the historian, says that William Bull was the first native of South Carolina who obtained a degree in medicine. In 1734 he graduated at the University of Leyden, and on that occasion, defended and published an Inaugural Dissertation "*De Colica Pictonum*." He had studied under Boerhaave, and seems to have commanded the respect of his associates. By the celebrated Van Swieten, he is spoken of in his commentaries as the *learned* Dr. Bull.

In 1749, John Moultrie received the degree of Doctor in Medicine at the University of Edinburgh, and published a thesis "*De Febre Flava*,"

He was the first native Carolinian who obtained the degree at that University. According to Dr. Ramsay, ten other native Carolinians obtained the same honor between the years 1768 and '78.

As more particularly distinguished in this section of the country, the names of Drs. Lining, Chalmers and Garden, deserve to be especially noticed. They were all natives of Scotland, and emigrated in the early part of that century. Being men of unquestioned abilities, learning and enterprise, they contributed greatly, both by their influence and writings, to elevate the character of the profession.

In 1753, Dr. Lining published "*A Description of the American Yellow Fever*," in a letter to the celebrated Dr. Robert Whytt, Professor of Medicine in the University of Edinburgh. This was the first account of that terrible disorder which had emanated from this continent, and stands to this day, says Dr. Beck, unrivalled for the general accuracy and minuteness of its description.

Of Dr. Chalmers and his remarkable "*Essay on Fevers*," we have already spoken. He also wrote a valuable paper on *Tetanus*, which was very prevalent in Charleston in those days; and in 1776 he published his great work on the *Climate and Diseases of South Carolina*, in two volumes. "This production, says Dr. Beck, was the result of upwards of twenty years experience, and is worthy of especial notice as being the first and only work we have which gives an account of the peculiar diseases of any of the colonies. It fully merits a place along side of the works of Huxham and Clegborn."

Dr. Alexander Garden was another distinguished physician of Charleston, at this period. From all the accounts left of him, he appears to have been a man not merely well versed in his profession, but highly accomplished in literature and general science. He was much devoted to natural history; and the transactions of the Royal Society contain several of his papers in this department. As a proof of the high estimation in which he was held, it may be mentioned, that Linnæus, the greatest Botanist of the age, with whom he corresponded in Latin, gave the name of *Gardenia* (in honor of him,) to one of the most beautiful flowering shrubs in the world. He was a member of the Royal Societies of Upsal and London. About the year 1764, he published an account of the anthelmintic virtues of the *Spigelia Marylandica*, together with a botanical description of the plant. For the first knowledge of its virtues as a vermifuge, it appears we are entirely indebted to the Cherokee Indians. Ac-

cording to Dr. Garden, the discovery was made by them about forty years previous to the time he wrote. It is needless to say that it retains to this day the high reputation which it acquired nearly a century ago.

Virginia could also boast of some distinguished medical men; and among these especially were Clayton and Mitchell. Dr. John Clayton was particularly eminent as a botanist, and devoted a long life to the investigation of the plants of Virginia. He is honorably mentioned by Thomas Jefferson, in his *Notes on Virginia*, as "an accurate observer who passed a long life in exploring and describing its plants, and is supposed to have enlarged the botanical catalogue as much as almost any man who has lived." Mr. Jefferson speaks of him as a native of Virginia, but Dr. Beck says "it is incorrect," and that he was of English origin.

Dr. John Mitchell was an Englishman, who emigrated to Virginia about the beginning of the last century, and was alike distinguished for his attainments in medicine and natural history. The productions by which his name has been handed down to posterity, are—*An Essay on the Causes of the Different Colors of People in Different Climates*," and "*Letters on the Yellow Fever of Virginia*." The first of these, says Dr. Beck, is a production of no ordinary character. It was published in the *Philosophical Transactions* of 1743, and occupies about fifty pages. The second gives an account of the yellow fever that prevailed in Virginia in the years 1737, '41 and '42. This paper was not published at the time, but the manuscript fell into the hands of Dr. Franklin, by whom it was given to Dr. Rush. It was entirely by the observations and suggestions of this physician, that Dr. Rush, as he himself frankly acknowledges, was afterwards led to the free use of purgatives in the yellow fever of 1793.

Another physician of Virginia, and a native, Dr. John Tennent, deserves to be mentioned, as having written the first account of that valuable medicine, the *Polygala Senega*. He appears to have been a connection of the celebrated Dr. Richard Mead, of London, and it was to him that he communicated the first information on this subject. It seems that the plant had long been used by the Seneca tribe of Indians, as a specific for the bite of the rattlesnake. Dr. Tennent had seen cases of this kind successfully treated by it, and from the analogy in the symptoms and those of pneumonia and pleurisy, he was led to try it in those diseases, and, as he relates, with great success. He also recommended it in rheumatism, dropsy and gout. The virtues of the *Polygala* had no sooner been promulgated in Europe, than they were tested and confirmed by

Bouvard and other French physicians. It is worthy of remark, says Dr. Beck, that although its efficiency against the bite of the rattlesnake has proved fanciful, yet its reputation as a valuable adjuvant in certain forms of pulmonary disease has been retained to the present day. For the subsequent application of it too, as a remedy in croup, we are indebted to an American physician, Dr. Archer, of Maryland. By him it was originally recommended in this disease in the year 1806. To American physicians are we thus indebted for almost all our knowledge of this valuable plant.

Thus, gentlemen, have I given a brief and imperfect sketch of the names and labors of the distinguished Southern physicians, who flourished in the days of our colonial history. After their departure, there was a long interregnum of literary obscurity in the Southern States, and it is only within our day, that the sceptre of medical power and distinction, which was allowed to pass into the hands of our more energetic brethren at the North, seems like being again restored to the clime in which it originated. But this will depend in a great measure upon the energy, zeal and perseverance with which we cultivate medical science in the Southern States. Far be from me the wish to excite *sectional* prejudice or animosity in the medical profession throughout our whole country. My only desire is to awaken among the physicians of the South a spirit of generous and honorable rivalry with their talented and accomplished brethren of the North, in the pursuit of knowledge which concerns most deeply the welfare and happiness of the whole human family. The great Fathers of Medicine lived in Southern countries, and the schools of Alexandria, Pergamos and Rome could boast of the greatest intellects of their age, when London and Paris, Edinburgh, Dublin and Vienna, were in a state of barbarism. Time is not allowed me to even glance over the progress of medical science in Europe from the period of the Esculapian Temples down to the brilliant era in which we live; but it may be interesting to note the origin and progress of medical schools in this country, from their very inception down to the present day; and I shall proceed to this before describing the course of study that is contemplated in the Institution which we are inaugurating to-day, or pointing out the particular duties belonging to the Chair which has been assigned to my charge. I enter upon this part of my task to-day, gentlemen, with pleasure, because it will show you from what small beginnings some of our greatest Institutions have sprung, and how much may be accomplished by individual enterprize and energy.

Among the most singular features connected with the history of our

Colonial Medicine, is the fact that so little attention was paid to professional education. This is the more remarkable, says Dr. Beck, inasmuch as our colonial ancestors were fully alive to the importance of general instruction, and the most honorable efforts were made to establish it on a respectable foundation. So early as the year 1638, Harvard University, in Massachusetts, was founded. In 1691, William and Mary College, in Virginia; in 1700, Yale College in Connecticut; and in 1746, Princeton College, in New Jersey, were severally established; yet in none of them was any provision made for instruction in medical science. The education of physicians, therefore, at this period, restricted as it was to the personal instruction of those with whom they studied, must have been limited indeed. The only mode of supplying this deficiency was by resorting to foreign countries; and it appears that almost all the distinguished physicians who flourished anterior to the Revolution, had received their education in Europe.

The first attempt at establishing a regular system of medical instruction in this country was made but a few years before the Revolution; and for this we are indebted to Drs. William Shippen and John Morgan, both natives of Pennsylvania, who projected the plan during the prosecution of their studies abroad. In 1762 Dr. Shippen returned to his native country, and in that year delivered a course of lectures on Anatomy to a class of students amounting to twelve in number. The lectures were repeated in 1763 and '64. In the following year Dr. Morgan, who had just returned from Europe, pronounced "A Discourse upon the Institution of Medical Schools in America," in which he proposed a plan for teaching the different branches of medicine, and portrayed with prophetic ardor the blessings which would flow from such a measure. "Perhaps," said he, "this medical institution, the first of the kind in America, though small in its beginning, may receive a constant increase of strength, and annually exert new vigor. It may collect a number of young persons of more than ordinary abilities, and so improve their knowledge as to spread its reputation to distant parts. By sending them abroad duly qualified, or by exciting an emulation amongst men of parts and literature, it may give birth to other institutions of a similar nature, or occasional rise by its example, to numerous societies of different kinds, calculated to spread the light of knowledge through the whole American continent wherever inhabited."

Happily, he spoke to a body of men capable of entering into his ex-

panded views; and measures were soon after adopted for forming a medical faculty. Dr. Morgan was appointed Professor of the Theory and Practice of Medicine, and Dr. Shippen, Professor of Anatomy and Surgery. The other chairs were not immediately filled. In 1768, Dr. Adam Kuhn, a pupil of Linnæus, who had just returned to his native country, was chosen Professor of Botany and Materia Medica; and in 1769, Dr. Rush, who had just finished his education at Edinburgh, was appointed to the chair of Chemistry. At the same time Dr. Thomas Bond gave clinical lectures at the Pennsylvania Hospital. Being thus provided with professors on the most important branches, the school went into complete operation, and the lectures were continued to the year 1775, when they were suspended by the war of the Revolution. We learn that Dr. Shippen at this time had delivered fourteen courses of lectures, and the annual number of students had *increased to between thirty and forty!* In 1771, the degree of doctor in medicine was conferred on *four students*, being the first given by this institution.

Such, gentlemen, was the origin of the medical department of Pennsylvania University, an institution which has ever occupied the first rank among the medical schools of the United States.

How well its subsequent career has fulfilled the prophetic aspirations of its enthusiastic young founders, and how its accomplished graduates have carried abroad the light of medical knowledge, and established schools in other parts of the country, are matters of history too well known to require further notice at this time.

New York soon became emulous of the example set her by Philadelphia, and in 1767, adopted measures for extending similar advantages to medical students. The scheme of a medical college was projected by a number of medical gentlemen, who were afterwards appointed professors. They submitted it to the Trustees of King's, now Columbia College. By them it was promptly and cordially received, and the following professors unanimously appointed: Samuel Classey, Professor of Anatomy; John Jones, Professor of Surgery; Peter Middleton, Professor of the Theory of Physic; James Smith, of Materia Medica and Chemistry; John V. B. Tennent, of Midwifery; and Samuel Bard, Professor of the Practice of Physic.

These gentlemen were fully competent to the enterprize they had undertaken, and discharged the duties of their respective chairs with much satisfaction to the governors of the college, who ordered a committee "to

communicate the same to the several medical professors, and to express the high opinion the corporation entertained of the learning and ability whereby they had respectively distinguished themselves; to thank them for the zeal they had displayed for the honor of the seminary, and the pains they had taken to promote its interests; and to signify their hopes that the said professors, by a continuance of their services, would render the science of medicine much more respectable than it had hitherto been in this country, to their own honor, the reputation of the college, and the great emolument of the public."

Such, gentlemen, was the manner in which this infant institution was greeted by the most prominent citizens of New York, on the 25th of November, 1767.

The schools thus started in Philadelphia and New York were the only ones attempted before the Revolution. The first medical degrees were conferred by the College of New York. In 1769 the degree of Bachelor of Medicine was conferred upon Samuel Kizam and Robert Tucker. In 1770, the degree of *Doctor* in Medicine was conferred upon the last of these gentlemen; and in May of the following year, upon the former.

"The establishment of medical faculties, says Dr. Beck, was unquestionably the most important event which had taken place in the history of our colonial medicine. It at once presented our profession in a new and imposing attitude before the public, and is associated with many circumstances of high interest. Not the least of these is, that it was the result entirely of *individual enterprise*, and originated in the bosom of the profession itself."

I am warned by the passing hour, gentlemen, to here close my hasty sketch of the state of medicine during our colonial existence. The Revolutionary war succeeded. During that eventful period, our profession stood firm in our country's cause; and the names of Warren, Mercer and Rush show that they were not idle spectators of the fray. Nothing, however, was done during this period for the advancement of medical science. The newly formed medical colleges were broken up, and all the energies of the country directed to the attainment of a nation's highest hope and ambition. When the Revolution was over, and an independent government established, a new career was commenced. In common with everything else, Medicine felt the sacred impulse, and during the brief period of our independence we have made the most astonishing progress.

Philadelphia and New York continued to be the most prominent seats

of medical science in this country until the year 1819, which marks a new epoch in our medical history. In that year Dr. Charles Caldwell, a man of extraordinary energy and ability, accepted an invitation from the Trustees of Transylvania University to go and establish a medical school at Lexington, Ky. He says in his *Autobiography*, "I was the first and genuine pioneer in the enterprize. In the year 1819, I found the mental soil of the West and South as perfect a stranger to real medical philosophy, as Boone and Kenton found their physical soil a stranger to wheat and barley, on their first arrival in the unweeded wilderness. Of mere practical medicine, respectable in its order, and useful in its effect, certain portions of the Mississippi valley were not at that date entirely destitute. But in relation to philosophical medicine, the whole région was a barren waste."

Dr. Caldwell was a native of North Carolina, and went to Philadelphia in 1792, for the purpose of attending the medical lectures. He was a man of lofty ambition, gigantic intellect and untiring industry. Even during his student's career, he engaged in discussions with some of the first men of the city, and after obtaining his degree, he resolved to settle in Philadelphia and enter the lists for fame with such men as Rush, Physic, Wistar, Barton, Kuhn and Woodhouse. Nor did he fail to acquit himself with distinction in all his contests with them. The great object of his ambition was a Professorship in Pennsylvania University, but it seems he was doomed to disappointment, and after laboring for twenty-five years to obtain it, he gave it up in despair and resolved to go out to the far West, where he would, at least, have the honor of being the first to plant the standard of true medical science.

On his arrival in Lexington, Dr. Caldwell says he found in waiting for him *thirty-seven* pupils, but nothing that could be regarded as means for the instruction of them; no suitable lecture rooms, no library, no chemical apparatus of any value, and not the shadow of a cabinet of any description. It seems that the inhabitants of the place, especially after the late occurrence of a devastating fire, were at an ebb corresponding to that of the means of medical teaching. In addition to all this, he was placed in the direction of a faculty, or rather, as he says, the *materials* of which to form a faculty, of whose qualifications for the important duties they were about to commence, he certainly gives no flattering account. There were five Professors to perform the duties of seven chairs, and none of them, save Dr. Caldwell, had the least confidence in the success of the new insti-

tution. He was Dean of the Faculty, and upon him devolved the arduous duties of inspiring his young colleagues with courage, and of developing the resources within their reach. It was upon his eloquence that the Faculty chiefly relied to raise the necessary funds for the purchase of a library, museum and apparatus. He went before the Legislature of Kentucky, and delivered one of those eloquent and touching appeals in behalf of struggling science, which seldom fail to loosen the purse strings of the wealthy or to enlist the influence of the public-spirited. He asked for \$10,000, but only obtained \$5,000. This sum was entirely too small for the objects contemplated, and it was resolved that a similar effort should be made before the assembled citizens of Lexington. On this occasion, Dr. Caldwell made one of his happiest efforts, and was so far successful as to obtain a *loan of six thousand dollars* for a period of five years, without interest. This proved ultimately to be a *gift*, as the return of the money was never demanded.

Thus provided with the sum of *eleven thousand dollars*, Dr. Caldwell was duly commissioned to go to Europe and invest it in such articles as he might think advisable. This was in 1821.

It was in this institution that was brought to light the practical talent of the great Western surgeon, Dr. B. W. Dudley, who stands to this day, and perhaps will ever be, unrivalled in the number and success of his operations for *stone in the bladder*.

Another great Western physician was brought into notice by this school, and that was Dr. Daniel Drake. He lectured but a few years, however, at Transylvania, before he became dissatisfied and went back to Cincinnati, where he established a rival school. He afterwards figured largely as a medical teacher and writer, and has left us a work which will doubtless prove a lasting monument to his varied talents and untiring industry.

South Carolina took the lead in the establishment of Southern medical schools, as she had done in the cultivation of medical science during the colonial period of our history. I am indebted to my esteemed friend, Prof. S. H. Dickson, of Charleston, for the following brief account of the origin and progress of the Medical College of South Carolina.

The original charter of this institution was obtained in 1823, and the first faculty was elected in November, 1824. The first class numbered forty-six matriculants and five graduates. The second class had seventy-eight matriculants and twenty-six graduates. The third class had ninety-six matriculants and thirty-three graduates. The fourth class had upwards of one

hundred students. This was the session of 1827-8. The size of the classes soon reached 150, and for some years vacillated between this number and 200. It has reached as high as 240, but for the last few years the classes have been uniformly about 200.

This is certainly one of the most respectable medical colleges in the Union, and Charleston can boast of a medical journal that is not inferior to any in our country.

The next institution of the kind established in the South, was the Medical College of Georgia. This was organized in 1832.

The first class numbered 28 students and 4 graduates.

" second	"	"	30	"	"	15	"
" third	"	"	37	"	"	15	"
" fourth	"	"	31	"	"	8	"
" fifth	"	"	44	"	"	15	"

This was the winter of 1836-7. From that time the classes increased till they got up to nearly 200, and at this day I think they average about 150.

We come now, gentlemen, to the origin and progress of medical schools in the city of New Orleans. I am indebted to one of the professors in the medical department of our University for most of the following facts, which were furnished me for publication in 1849.—*Southern Medical Reports, Vol. 1.*

The Medical College of Louisiana was incorporated by the Legislature on the 3d of April, 1835, and the first course of lectures was delivered the following winter, in part at the Charity Hospital and partly at No. 41 Royal street. The number of matriculants was 15, and the number of graduates 6. The next four courses of lectures were likewise delivered at the Charity Hospital, with the exception of those on chemistry, which were delivered in different places about the city.

The next three courses were delivered at a small rented house, No. 239 Canal street. The number of matriculants had then increased to 62, and of graduates to 12. This was the winter of 1842-3.

In 1843, the Legislature granted a ten years' lease of a lot of ground, on the corner of Common and Phillippa streets, upon which the professors erected a building costing about \$12,000. The next four courses of lectures were delivered in this building.

In 1845, this institution was made the *Medical Department of the University of Louisiana.*

By an Act passed April 22, 1847, the Legislature provided for the spacious and commodious building at present occupied by the Medical Department. This building cost the State \$40,000.

In March, 1850, the Legislature granted the sum of \$25,000, to be expended in the purchase of anatomical and pathological specimens, instruments, and apparatus of various kinds, for the use of this department of the University; and in 1853 an additional appropriation of \$6,000 was made to carry out these purposes.

The State endowments granted to this Institution may be thus summed up :

Lot of ground on Common street, in the centre of the city,	
150 by 200 feet, worth, say,	\$50,000
Medical College edifice,	40,000
For Museum and Apparatus,	31,000
Total,	\$121,000

These magnificent appropriations for the promotion of medical science, are highly creditable to the State of Louisiana, and richly merit all the attention, labor, and ability which could possibly be displayed by the honorable Faculty, who have charge of this department of our University.

Yet, from some cause or other, this institution, notwithstanding its munificent endowment and the great advantages presented by the city of New Orleans as a place for medical teaching, has never received the amount of patronage to which it was thought to be entitled, nor that attained by other medical schools in the South-west, of far inferior position. We have come to the conclusion, concurred in by many others, that the chief cause of this has been the absence of honorable and spirited *competition*, which seems to be as much required to excite the ambition and energy of men engaged in the pursuit of science and the education of youth, as in any other occupation whatever. Monopolies of all kinds have ever proved to be the *bane* of enterprize, whilst competition sharpens the ingenuity and stimulates the dormant energies of man. No medical institution possessed of *real merit*, either in this country or Europe, has ever been injured by fair and honorable competition; whilst it is not to be denied that many have thereby been stimulated to increased effort and thus attained a higher degree of usefulness and distinction, than if they had remained sole possessors of their respective fields of action.

Having noticed the origin of medical schools in the Northern, Western

and Southern sections of the Union, we come now, gentlemen, to the latest institution of the kind that has been started, viz : *The New Orleans School of Medicine*.

In the month of April last, the gentlemen comprising this Faculty, began to agitate privately among themselves the project of a new Medical School in this city, to compare their views and to examine the resources they had at command for the accomplishment of so great an undertaking. We were not unconscious of the extraordinary advantages presented by New Orleans for the study of medicine—we were convinced that these advantages had never been fully developed and brought into play, and we had often heard the opinion expressed by physicians and students residing in this and the surrounding States, that the establishment of another respectable school here would be followed by the happiest effects. After mature deliberation, we resolved to make the experiment, relying upon *our own resources* for the *means*, and upon *our own efforts* for the success which we hoped to attain. The results have been, that by the end of the first month, our ground was purchased and paid for, our building was under contract, our charter was obtained, under the ablest legal advice, and in strict accordance with the law of the State made especially for such purposes, and our public announcement was issued from the press. Our enterprize has been warmly greeted by the medical profession throughout the South-west, by the public press and by the citizens of New Orleans, who have voluntarily contributed a handsome amount towards the purchase of a Museum. The administrators of the Charity Hospital, who are invested by law with full power to control and manage that great Institution as they may think proper, have granted us every facility we could desire, and we shall endeavor so to use these inestimable privileges as to make them alike subservient to the relief of the afflicted and the edification of medical students. In addition, we shall open a Dispensary for the relief of the poor who may not wish to enter the hospital. All this we have done within ourselves, and after such evidences of sincerity and energy on our part, we cannot doubt that the Legislature will make us a liberal appropriation for the purpose of further carrying out our plans. Having done so much for the medical department of the University, which, in the beginning was only a private corporation like our own, it will surely not withhold its aid from an institution having the same great objects in view. But before calling on Hercules for help, we have put our own shoulders to the wheel, and have done more than was ever done before by the originators of any similar institution.

We now present you, young gentlemen, a college building complete in its equipment for all the practical purposes of medical teaching—lecture rooms spacious and comfortable—anatomical rooms provided with every desirable convenience—chemical and obstetric apparatus of the first order, and the nucleus of a museum, of much practical value, and capable, with the addition of a moderate sum, of being made equal to any in this country. We present ourselves before you as *instructors*; not without some distrust in our fitness for the arduous duties we are about to undertake, but firmly resolved to give you our devoted attention, and to do all in our power to accelerate your progress in the pursuit of medical knowledge.

Hippocrates, the Father of Medicine, has laid down the following six things as being required to constitute the physician, viz: "Natural talent—a good preliminary education—a competent instructor—early study—industry and opportunity, or proper facilities." "The chief of these, he continues, is *natural talent*. In want of this, all else is useless; but if this be possessed, the art may be acquired by due attention and by beginning to study it at an early age and in a *proper place*." The same immortal author has given us the following quaint comparison to illustrate his views:

"The study of medicine may be compared to the culture of plants. Our nature or disposition is the ground—the precepts of the teacher are the seed—commencing our studies early resembles the sowing of the seed in a proper season—an appropriate location for the pursuit of study resembles the surrounding atmosphere, which affords nourishment and growth to the plant—diligence in study is like the various means pursued to render the ground fertile—and finally, the long continuance of our studies resembles the period essential to full and perfect fructification."

The principles here laid down, though dating from a period upwards of two thousand years ago, are true at the present day; more especially those relating to the paramount importance of a *natural talent* for the profession and a *proper place* for the study of it. It is in this last particular, gentlemen, that we claim for New Orleans, advantages superior to those presented by any place in America, and more especially to Southern students. It is not alone necessary that you should hear good, sound lectures on all the different branches of medical science, but you should see disease as it is modified by climate and locality, and learn the proper treatment of various affections as they are thus modified. Here we will show you a vast collection of the very diseases you will meet with when you go into prac-

tice at home, and the treatment that is successful here, will be found equally so there. All writers on Tropical diseases wherever educated, admit the powerful influence of climate on the constitution of man, both in health and disease. On this subject the celebrated Dr. James Johnson, of England, makes the following remarks :

“The more intimately we become acquainted with the various climates of the earth we inhabit, the more we shall become convinced that the ‘*balance of comfort*’ is not so unequally poised as some querulous philosophers imagine. The Eastern world has its *hepatitis*—the Western its *causis*—the Northern shores of the Mediterranean have their *pestilential fevers*—the Southern and Eastern are annually desolated by the *plague*. If ‘happy England’ knows not these but by report, or their sequelæ, she every year sacrifices nearly *sixty thousand* of her inhabitants at the altar of *Phthisis*.”

Our professional brethren at the North have taken the bold position —“that the American constitution must be studied by itself—it differs from the European in culture, in proportions, in the obvious character of the skin and hair—why should it not differ in the susceptibilities which, awakened, become disease? The American climate remoulds the European, and casts a new die of humanity—will it not generate causes of disease different from those of the old world?” Thus wrote a committee of the American Medical Association, of which Oliver Wendell Holmes, of Boston, was Chairman, and John Bell, of Philadelphia, Austin Flint, of Buffalo, and Daniel Drake, of the West, were members.

If a residence on the American continent can thus modify the human constitution and its various diseases, as is maintained by our Northern brethren, is it unreasonable to suppose that large sections of our extensive country, differing as much in latitude and geographical feature as do the regions around New Orleans and Boston, should present corresponding differences in their endemic diseases?

The late Dr. Charles Caldwell was the first to proclaim publicly that “those physicians alone, who are practically versed in the diseases of the West and South, are qualified either to treat them skillfully and successfully themselves, or to teach pupils so to treat them.” This was in 1819, and the opinion was denounced at the North.

In 1844, a similar position was taken by the editors of the New Orleans Medical Journal, which then began its career, and was the only medical

journal published in the Southern States. It was strongly condemned at the North and stamped with the epithet of "*State Rights Medicine*."

But, gentlemen, where can you find the skillful physician, experienced alike in Northern and Southern practice, who will deny the truth of this position? Or where is the work on practical medicine, written by a Northern author, who had never seen or practiced on Southern diseases, that is a *complete and safe guide* to the young and inexperienced practitioners of the South?

The great work of our distinguished countryman, Dr. Wood, on the Practice of Medicine, as also the admirable lectures of Dr. Watson, of London, two of the most approved text-books of the day, are certainly of immense value for the general accuracy of their symptomatology, their correct diagnosis, and their pathological researches, but what experienced and skillful practitioner in the South pretends to follow closely the course of treatment they lay down? And who of us, if seized with the congestive fever, dysentery or pneumonia, either in this city or on the Yazoo or Red rivers, would not rather trust the management of the case to some experienced and skillful physician of the neighborhood, than to either Dr. Wood or Dr. Watson, even though we had the power of calling them to our bedside with the speed of the electric telegraph? If this be *sectional medicine*, I cannot help it. It was not made so by me, but by Nature.

It is now universally admitted, gentlemen, that a knowledge of practical medicine can only be attained by the agency of practical instruction. The physician, like the artizan, can never be accomplished if he depends on books and oral instruction alone. The application of his own powers of observation, dependence on his own judgment and action, are essential requisites, and the sooner his efforts are directed in this course, the more rapidly will his knowledge increase. An adequate course of clinical instruction can only be obtained in hospitals. Although what are called "hospital clinics" may be advantageously added, they are an inefficient substitute for hospital teaching; for there alone can the progress of disease and the results of treatment be observed with full benefit to the student of medicine.

These are the sentiments of the committee on *medical education* of the American Medical Association, published in 1848, and maintained ever since by that great national society.

The celebrated Dr. Graves, of Dublin, has said that "from the very commencement, the student ought to witness the progress and effects of

sickness, and to persevere in the daily observation of disease during the whole period of his studies." But this can only be attained by hospital attendance. You may study elsewhere the different branches of medical education—anatomy, physiology, materia medica and chemistry; but when you come to study disease, a well-regulated hospital affords the greatest advantages. You go there to convert theoretical into practical knowledge; to observe the symptoms of diseases, previously known to you only through the medium of books and lectures; to learn the art of recognizing these symptoms, and of appreciating their relative importance and value; to study their connection with morbid alterations of internal organs; and finally, to become acquainted with the best method of relieving your patients by the application of appropriate remedies."

Now, gentlemen, as we are allowed free access to the Charity Hospital, opposite our College, it is the intention of this faculty that you shall have every opportunity to realize the great advantages to be derived from that institution. And time will be allowed for this purpose. Seven of our professors have entire control of wards in the Hospital, and each one will give clinical instruction daily until half-past ten o'clock, at which time the regular lectures at the College will commence.

One of the greatest defects in our American system of medical education has been the want of proper and sufficiently extensive facilities for clinical instruction. We have it in our power to supply this want, and we intend to do it, as far as our abilities will permit. We have adopted a course of clinical instruction very much like that pursued in Germany, where this branch is taught better than anywhere in the world, and we feel confident that it will be generally approved by the profession.

A word now, gentlemen, in regard to the important chair that has been confided to me. Deeply sensible of the responsibility I am about to assume, I nevertheless enter upon the task with a firm resolution to give you my best efforts, and with the hope that you will extend to me your kindest indulgence. No man knows what he can do till he tries.

I shall not set myself up before you as an infallible *oracle*, proclaiming indisputable *dogmas ex cathedra*; but rather as a senior fellow-student of the mysteries of medicine—a friendly mentor, to point out your pathway and to aid you in your labors.

It has been well observed that "lectures cannot communicate all the knowledge of the profession; they cannot approach this. The great purpose of lectures should be, to teach the student to learn for himself. They

are not to take the place of private study, but to inform the pupil how that study may be pursued to advantage. Learning is a thing which no man can do for another : the weight of education must fall upon the learner. What he does not get and make his own, by the active exercise of his own powers, he does not get at all : he must not *merely receive*, he must take."

I shall endeavor to give you an idea of the most approved theory and practice in the various diseases to which I shall invite your attention in this hall, and shall devote special attention to the most ordinary diseases—those of most frequent occurrence, and with which you will have chiefly to contend, leaving the more obscure, rare, and incurable to be noticed by the Professor of Clinical Medicine and Auscultation. I deem it of more importance to teach you how to recognize and cure the most common diseases, than to diagnose the most rare and obscure and incurable.

In conclusion, allow me to appropriate the eloquent remarks of Dr. Graves, uttered on a similar occasion :

" When I shall hear that a pupil who has acquired a solid stock of practical knowledge in this institution has settled in any particular town or district, I shall feel, on the part of my colleagues and myself, that we have been the humble means of conferring a blessing on the people entrusted to his care ; and we shall then be able to congratulate ourselves upon holding a situation which multiplies a thousand fold our efforts to be useful, and enables us to stretch forth our hands to heal men of all nations and languages. The hero and the despot may extend a sovereignty over distant regions—may exert an unlimited control over millions of vassals—may dispense honors and rewards, or inflict punishment and death—they may, like Alexander, grieve at the narrow limits of a conquered world, and sigh for other scenes of glory : but they cannot chase away pain ; they cannot bid the burning thirst to cease, or give back repose to the sleepless : they cannot impart feeling or motion to the paralysed, or sight to the blind ; and above all, they cannot imitate that almost godlike function of the healing art, by which man is enabled to recall to his fellow man reason long banished, or restore to society the hapless victim of insanity."

SPECIAL SELECTIONS.

LECTURES ON THE VARIETIES OF CONTINUED FEVER AND THEIR DISCRIMINATION.

Delivered at St. Thomas's Hospital, by THOMAS B. PEACOCK, M. D., Assistant-Physician to St. Thomas's Hospital, etc.

LECTURE V—*On the Relations of Typhus and Typhoid Fever.*—

In my last lecture I described to you the general symptoms and morbid appearances of typhoid fever. In the present, I propose to inquire how far we are justified in adopting the view advanced at the commencement of the course, that typhus and typhoid are not mere varieties of the same disease, but distinct specific forms of fever.

I have already mentioned, that with the advancement of Medical science, the tendency has been to limit the so-called essential fevers, and to ascribe the constitutional symptoms to local causes, and especially to lesions of the gastro-enteric mucous membrane. Various writers have at different times described inflammation and ulceration of the mucous membrane of the bowels as occurring in fever, but such appearances were only regarded as accidental complications, arising from peculiarities of climate or season, or in particular forms of disease. Thus the characters of the typhoid fever of Paris were well described by Petit and Serres, in 1813, under the name of "fièvre entéro-mésentérique." Broussais, (a) however, ascribed much greater importance to the inflammation of the gastro-enteric mucous membrane, regarding it as existing in all cases of fever, and contended that the febrile symptoms were the direct effects of such local disease.

In 1826 M. Trousseau (b) gave an account of M. Bretonneau's observations on typhoid, as he had observed it at Tours, under the names of Dothinenterie, or Dothinenterite. In 1827, Dr. Bright (c) published several cases, affording examples of the intestinal disease occurring in the fever of London; while Dr. Alison showed its almost constant absence in the epidemic fever of Edinburgh. (d) In 1829, the first edition of M. Louis's work appeared, in which he illustrated most fully and philosophically all the features of the typhoid fever of Paris, both during life and after death, and in particular demonstrated the constancy of the intestinal disease. Dr. Tweedie and Dr.

(a) Examen de la Doctrine Médicale, Paris, 1816.

(b) Archives Générales de Médecine, Tome X, 1826, p. 67.

(c) Reports of Medical Cases, Vol I., p. 178.

(d) Edinburgh Medical and Surgical Journal, Vol. XXVIII., p. 233

Southwood Smith, in 1830, reported, however, that in London, while the intestinal disease generally occurred, it was also very frequently absent; and in 1836, M. Lombard, (e) who was well acquainted with the morbid appearances of typhoid fever, as he had observed it both in Paris and Geneva, having had an opportunity of witnessing post-mortem examinations of cases of fever both in Glasgow and Dublin, was not a little surprised to find that the intestinal disease, which he had believed to be a constant feature of the disease, did not always exist in the English fevers. The first impression produced by these observations was to raise doubts in Dr. Lombard's mind as to the importance of the intestinal lesion as a constant occurrence in fever, while he still held to the identity of the two forms of fever. Subsequently, however, after he had seen more of the English fevers, he adopted the view that there were here prevalent two distinct forms of disease—typhus, which he regarded as originating in Ireland, and as propagated by contagion by the Irish laborers; and typhoid, which was an endemic disease, precisely similar to that with which he was previously familiar.

In 1836, Dr. Gerhard (f) published an account of an epidemic of typhus in Philadelphia, in which, while the symptoms and morbid appearances bore entire resemblance to the typhus of this country, they presented very marked distinctions from the typhoid fever, or dothinerterite, which he had before met with in the United States, and which he had found to be in every respect similar to the typhoid fever which he had studied in France; and he hence inferred the specific difference of the two diseases.

Such was the state of the question when, in 1838, the Academy of Medicine proposed for the subject of a prize, the investigation of the analogies and differences between typhus and typhoid fevers (g). This led to the publication of the Essays of Gauthier de Claubry and Montault, (g) the former of whom contended for the two fevers being one and the same disease, while the latter inferred their specific distinctness.

In 1839 M. Valleix entered into an elaborate investigation of the respective features of the two forms of fever, founded upon the reports of fourteen cases collected by Dr. Shattuck, of Boston, at the London Fever Hospital; and he was led to adopt the conclusion that the fevers of this

(e) *Dublin Journal*, Vol. X., pp. 17 and 101.

(f) *American Journal of Medical Science*, Vol. XIX., p. 289.

(g) *Mem. de l'Académie Roy. de Méd. T. VII.*, pp. 157, 185.

country embraced two distinct species—one, an essential fever, typhus; the other, typhoid, which is identical with the typhoid fever of Paris.

In 1839 Drs. Henderson and Reid published a report (h) on the typhus fever of Edinburgh, in which they investigated fully and carefully the symptoms of that disease during life, and the appearances of the body after death, and established the almost constant absence of any abdominal symptoms and of the intestinal lesion. On the other hand, they published a communication from Mr. Goodsir, showing that a fever, every way similar to the French typhoid, prevailed endemically in some adjacent districts.

In 1840, Dr. Stewart, who had closely studied both typhus and typhoid at the Glasgow Infirmary, and the latter disease in Paris, published an able memoir, (i) in which he advocated the non-identity of the two diseases; and in the following year, M. Louis, in the second edition of his work, adopted the same view.

The peculiarities which distinguish the two diseases, and which have been relied upon as indicating their specific difference, may be briefly stated as follows:

1. The mode of invasion of the two diseases is generally very different. Typhus usually attacks suddenly, and rapidly produces such prostration of strength as to compel the patient to seek medical relief at an early period. Typhoid is usually more gradual in its mode of invasion, and less rapidly advances; so that the time at which the cases come under treatment is usually much later.

2. Typhus can generally be traced to contagion; the origin of cases of typhoid is often very obscure, and the disease, most probably, generally originates in common causes, or, at least, is very much less contagious.

3. Typhus affects persons at all ages, both those in early and in advanced life, though most common during middle age. Typhoid affects chiefly young persons, and very rarely those more than 40 years old.

4. The eruptions which characterize the two diseases are different in their form, mode of appearance, and progress; that of typhus assumes the form of a rash, is not, except at the very commencement, elevated above the surface, and has a livid-rose color, and subsequently becomes petechial; that of typhoid consists of several spots, few in number, always elevated, and of a pale-rose color. The typhus rash appears at an early period, follows a regular course, and its disappearance is usually succeeded by conva-

(h) *Ed. Med. and Surg. Journal*, Vol. LII.

(i) *Ed. Med. and Surg. Journal*, Vol. LIV., p. 289.

lescence at the end of a few days. The typhoid spots come out a few at a time, and continue to make their appearance in successive crops, and their final disappearance may precede for many days the establishment of convalescence.

5. The predominant symptoms in typhus are ordinarily those of prostration of strength and of cerebral disturbance ; while the evidences of gastrointestinal disorder are of minor importance and frequency, and, indeed, are often absent. The symptoms of disorder of the gastro-enteric mucous membrane are, throughout the progress of typhoid, predominant: while the cerebral symptoms are less constant and usually less severe, and the prostration of strength is also generally less.

6. The duration of an attack of typhus is comparatively short, and is limited to a tolerably definite period. Typhoid is usually of longer duration, and is less regular in its course ; some cases being short, others very much prolonged.

7. In typhus, when convalescence is once established, the progress of the case to recovery is generally satisfactory, and true relapses seldom, perhaps never occur. In typhoid, relapses are of by no means infrequent occurrence, and inflammatory affections of the viscera and serous membranes frequently supervene during convalescence.

8. Typhus usually proves fatal during the second week of illness, and rarely after the expiration of the third week. Typhoid, though it may prove fatal at as early a period as typhus, usually destroys life, in from the third to the fifth week, and occasionally death takes place at a much later period.

9. After death from typhus, the only constant pathological condition found in the body, is the altered state of the blood, and the follicles of the intestinal mucous membrane never present any appearances of disease. In fatal cases of typhoid the follicular disease of the intestines is of constant occurrence.

These circumstances certainly afford broad grounds of distinction between the two forms of fever : but it has been contended that they do not prove their specific distinctness.

1st. It has been argued that the absence of the intestinal lesion in typhus is owing to the much earlier period at which death occurs in that disease than in typhoid. This objection does not, however, apply ; for, though the period of death in typhus be earlier than in typhoid, it is not too early for the intestinal disease to have appeared ; while occasionally typhus proves

fatal at a late period. Of the cases of typhus to which I have referred in my first lecture, one proved fatal from pneumonia on the thirty-first day from admission, the precise duration of illness not having been ascertained; and I have examined cases which have died on the nineteenth to the twenty-first days of illness, without meeting with any evidence of intestinal disease; indeed, after death at the latest period, the solitary and aggregate glands are even less distinct than in cases proving fatal in the earlier stages. Of the cases of typhoid also one died on the seventh or eighth day of serious illness, and yet in that instance the plates were not only greatly enlarged and much inflamed, but in places sloughs had already formed; and I exhibited to you a portion of intestine from a patient who died on the fourteenth day, which exhibited the most extensive and advanced disease. M. Chomel, indeed infers, from the observations collected by M. Louis and himself, amounting to 92 in number, that in typhoid, ulceration commences in the plates from the eighth to the twelfth or fifteenth day at the latest.

2ndly. It has also been contended that the peculiarities of the eruption on the skin, and the presence or absence of the intestinal affection in the two forms of fever, may depend on the relative vigor and age of the subjects attacked;—that typhus is a disease of the young and robust, typhoid of the aged and infirm or debilitated. But this is not the case; typhus appears sufficiently frequently in young subjects to prove its features to be similar in them and in the aged. The disease also may be conveyed by contagion to persons under the most diverse conditions, and yet in all, however its malignity may vary, its general features remain the same.

3rdly. It has been supposed, that the disease of the intestinal follicles is only an accidental complication, superinduced by peculiarities of local climate or epidemic influence. This argument would possess much force were the two diseases never found to prevail coincidently in the same localities—if the fever which prevails in one locality were always typhus, as is ordinarily the case in Edinburgh; or always typhoid, as in Paris. It fails, however, entirely to explain, how, in other localities, as in London for instance, we sometimes meet with one and sometimes with the other form of fever; and each of them, instead of being modified or displaying certain intermediate gradations, is found to present its clearly defined and characteristic features. For the establishment of the latter point we are indebted to Dr. Jenner (j), who for a period of three years conducted a most elabo-

(j) *Medico-Chirurgical Transactions*, Second Series, Vol. XV. 1850, page 23.

rate investigation into the history, symptoms, and morbid appearances in the cases of fever treated at the Fever Hospital; and he has conclusively shown that the typhus of London is as distinctly marked as that of Edinburgh, and the typhoid as that of Paris. In this state of the question it must, I think, be admitted, that the argument preponderated in favor of the non-identity of typhus and typhoid; but Dr. Jenner was able to furnish still more conclusive evidence of their distinctness. He has shown, that during the years 1847, 1848, and 1849, in all instances in which two or more cases of fever were admitted into the Fever Hospital from the same house, with one solitary exception, whatever was the character of the case first received, such also was that of the cases subsequently admitted; and he has justly concluded, that if the diseases were not propagated by separate contagions or poisons, there would certainly have been numerous exceptions to this rule, instead of the solitary one I have referred to. This, too, could hardly be regarded as an exception. It was the case of a boy received laboring under typhoid after his father had been previously admitted with typhus; but the boy was from home till after his father's removal to the Hospital.

The constant absence of any evidences of intestinal disease in typhus was confirmed by a report published by Dr. Reid (k) of the pathology of fever in Edinburgh in 1842, which embraced no less than 100 examinations; and in 1843 (l) by one by myself, detailing the results of examination in 31 other cases. These several reports give a total of 161 cases of fever examined between the years 1838 and 1842, in only 11 of which was the follicular disease found, or in about 1 in 14 cases. Dr. Bennett, however, (m) in 1846 and 1847, found the follicular disease more frequent in Edinburgh; or, in 19 out of 63 cases examined after death; but, as this report is not accompanied by any statement of the features of the cases during life, so far from invalidating the general conclusion, it only proves that, at the period in question, typhoid was usually prevalent in Edinburgh. Of the cases of fever in which the intestinal lesion was found, examined by Dr. Reid and myself, all were admitted into the Infirmary from districts adjacent to Edinburgh, and not from the town itself; or, if so, had come to Edinburgh laboring under the disease.

After having had my attention for several years specially directed to

(k) Lond. and Ed. Journal, 1842.

(l) Lond. and Ed. Monthly Journal, 1843.

(m) Ibid. 1848, N. S. Vol. II, p. 299.

these points, I have seen no exception to the rule, that the fever characterized by the general features and eruption of typhus is unattended by any lesion of the intestinal mucous membrane; or that the equally marked disease characterized by the rose-spots of typhoid is as constantly connected with the follicular disease. These facts have also recently been confirmed by Dr. Wilks from his experience at Guy's Hospital; and similar evidence has been brought forward by other writers both in this country and in America.

At the time when Dr. Jenner's paper was read at the Medico-Chirurgical Society in 1849, I was induced to look over the notes of the fever cases which I had treated at the Royal Free Hospital, to which institution I was then attached; and I found that, though these observations had not been collected with any reference to that investigation, in every instance where two or more members of the same family were admitted into the Hospital, the character of the fever corresponded in all the cases. Since this time, while I have been connected with St. Thomas's Hospital, I have equally directed my attention to this question. I have seen many instances in which several persons of the same family or from the same house, have been admitted with fever, or have been laboring under fever, and have found no exception to the rule, that all the cases in such instances corresponded in character. Very recently we have had several sets of cases of typhus occurring in members of the same family or in the same house; as, two patients under my care in Jacob's; three of a family under Dr. Bennett, Dr. Bristowe, and Dr. Goolden; and two of a family under Dr. Barker and Dr. Goolden. Yet in all these sets of cases the character of the fever was identical.

We have also in the General Hospitals, the opportunity of observing what in the Fever Hospital could not be seen,—patients laboring under other diseases becoming affected by typhus, from their vicinity to typhus patients. Of the cases to which I have referred, in six the disease was thus contracted, and very recently three or four similar instances have occurred. In these cases the character of the fever always corresponds with that of the case from which the others are derived. I have, indeed, seen typhus affect persons under the most diverse circumstances,—old and young persons, medical students, nurses, persons in depressed state of health, from unhealthy districts of town, and others in robust general health, and fresh from the country; but I never observed any material modification of the character of the disease, though, of course, its intensity or malignity

will vary. If, however, the poison of typhus and that of typhoid were the same, it is impossible to doubt that, instead of all the cases being characteristically cases of typhoid, some would be cases of typhus and some of typhoid; while others would present more or less of the characters of the two diseases.

I have recently treated a case, regarded as an ordinary instance of typhoid, and which passed favorably through the disease, and recovered, so that the patient was able to walk about the ward; he then was again taken with fever, having the usual features of typhus, and characterized by a typhous rash on the skin. In this instance, the patient lay in a bed near one occupied by a typhus patient, and appeared, during his convalescence from typhoid, to have contracted typhus. Facts of this kind must be regarded as strongly upholding the doctrine of the specific difference of the two diseases; for it is well ascertained, that both affections—like the eruptive fevers—confer, to a great degree, immunity from subsequent attacks.

Lastly, Dr. Jenner has shown that typhus and typhoid may be epidemic at the same time, or the one disease may decline, while the other is becoming more prevalent, *or vice versa*; and we have continual opportunities of observing this to be the case. Often you will find many cases of typhoid in the Hospital but only one or two of typhus; at other times, and such is now the case, the typhus cases will be much the most numerous.

With these various facts before us, there can be no longer much hesitation in adopting the conclusion, so ably illustrated, and, I think, fully established by Dr. Jenner, that typhus and typhoid are specifically distinct diseases. There may, it is true, be sometimes a difficulty in deciding as to which class a given case should be assigned. The typhus eruption may be more discrete than usual, the spots may be more distinctly defined, and when they first appear may be unusually elevated; and thus, at first sight, the eruption may bear a very close resemblance to that of typhoid. On the other hand, the eruption of rose-spots in typhoid may be mingled with a petechial eruption, which may assimilate it to the typhus rash; or, from the presence of other eruptions on the skin, the characters of either rash may be disguised. There may thus be difficulty in deciding as to the true nature of the eruption, but this difficulty will generally vanish on careful inspection, or, at any rate, on watching the progress of the case. I do not recollect to have ever failed to make up my mind as to the kind of eruption at the time I first saw the patient; or, on further examination a day or two after, to have found that the opinion first formed was incorrect. Were,

however, the difficulty of distinguishing the two diseases much greater than it really is, this would not prove their identity; it would only show, as contended by M. Louis, that they formed no exception to the rule, that most diseases, even some of those which are the best understood, are occasionally difficult to discriminate.

While, however, typhus and typhoid are distinct diseases, they are nevertheless, very closely allied. This, at first sight, might scarcely appear to be the case; for typhus presents the type of an essential fever, unconnected with local disease; while, typhoid is always associated with the intestinal affection. This difference is, however, more apparent than real; for in typhoid, as I have before mentioned, there is not any certain or constant relation between the intensity of the general symptoms and the amount of local disease. The intestinal affection can, therefore, only be regarded as one symptom or result of the essential disease. Both affections are thus closely allied to the eruptive fevers, while they are markedly distinct from the intermittent and remittent fevers dependent on malaria.

But, it may be asked, what is the advantage of thus elaborately drawing the distinction between these two forms of fever? Much every way. In the first place, though the practical application should not be now apparent, the extension of our knowledge would yet be desirable; for it cannot be doubted that all advances in our acquaintance with diseases must ultimately prove useful in practice.

But the distinction between typhus and typhoid is one which is full of importance. The prognosis in the two diseases is different; and, though the principles which should guide our treatment may be similar in both, they must be greatly modified in their application by the peculiar character of each.

INFLUENCE OF THE CLIMATE OF PERU ON PULMONARY CONSUMPTION.

By ARCHIBALD SMITH, M. D.

The various climates of Peru, as changed or modified by the measure of elevation from the sea, and other local causes, are not merely curious to the meteorologist, but more especially interesting to the physician; they are, above all, important in relation to the development in some localities, and the disappearance in others, of phthisis; this point I shall now endeavor very shortly to illustrate.

1. *What are the Localities or Climates in Peru in which Phthisis is most and least Prevalent?*—This disease is properly a product of the warm

and humid valleys of the coast, such as that of the Rimac. And from Lima, where you have an extensive view up this valley, to the loftiest snow-clad peaks of the Cordillera, every gradation of climate is unfolded in the intervening distance, that one would have to pass through in a voyage of many days, from Callao to Cape Horn. And in the inland glens beyond (as in the often-mentioned vale of Huanuco), we have noticed how the extremes of climate are brought within much nearer limits than those embraced even in this picturesque and imposing bird's-eye view from Lima—especially from the bridge, looking eastward. Nor is there, in all this range of climate, a locality in which phthisis is more prevalent than in the mild and equable temperature of the capital and its immediate environs.

Piura, the most northern province of Peru, though within two or three degrees of the endless moisture and vegetation of the Equator, is yet the most hot and arid in the republic. Its maritime district is also considered the most healthy on all the coast, and remarkably free from pulmonary disease or consumption. In the pastoral sierra—viz., on the lofty slopes and colder plains of the Andes, pleurisy and pneumonia are not unfrequent; and sometimes terminate in the worst manner, by suppuration or gangrene, when left, as usually happens in remote Indian villages, without medical assistance.* Phthisis pulmonalis is, I am persuaded by a long residence in these mountain regions, little known to the native population, except as imported to the hill-land from the coast. In those warmer valleys in the centre of the Andes, where the temperature is sufficiently favorable to the growth of the banana and sugar cane, we meet with frequent development of hepatic disease; and when the climate is particularly warm and humid, as in the province of Huamalies, on the borders of the Montañer, we even meet with severe examples of ague; and these situations are but ill calculated to restore the health of a consumptive invalid. I resided for several years in the vale of Huanuco, which—as previously mentioned—is dry, and free of malaria, at an elevation varying, as it extends along the banks of the river, from six to seven thousand feet above the level of the sea, with the thermometer rarely, throughout the entire year, above 72°, or below 66° Fahr. in the shade. But this climate, though

* The Indians have many native remedies for what they call *dolor de costado*, or pleurisy; but I found, in Cerro Pasco, bleeding, followed up by tartar emetic, most efficacious. In the sierra, bleeding is better supported than on the coast, where twelve ounces of blood is a large bleeding among the white Creoles. In Lima, where the lancet cannot be used safely, tartar emetic, pushed in small doses, alone or combined with morphine, to the extent of from twelve to twenty grains, generally subdues either pleurisy or pneumonia.

equable, did not prove favorable to the convalescence of phthysical patients brought there from other parts of the country; and I cannot say that I ever saw a case of phthisis originate in that locality. In like manner the cold—often damp and variable, and always highly rarefied—atmosphere of the mining district of Cerro Pasco, and other localities near the snow-line, is unfavorable to recovery from phthisis. But Huarriaca, which lies in the descent from Cerro to Huanuco, is very favorable to such recovery, as I had frequent occasion to test when at the mines; whence we usually sent our patients from pulmonary affections to convalesce at this desirable place, distant eight leagues of pretty rapid descent from the silver mines of Cerro Pasco. Huarriaca is in climate very like Obrajillo, on the western slope of the Andes, and is one of those recesses in the Andine glens and defiles very productive in maize, corn or wheat, potatoes, beans, and natural pastures on the heights, as well as cultivated lucern on the straths. Such, indeed, are the marked localities, blessed with a steady temperate climate, and a dry air of about 60° Fahr. in the shade, as well as sunny cheerful sky throughout the greater part of the year. Such are the localities where phthisis proper, or tubercular disease of the lungs, is only known as an exotic!

2. *The Proportion of Deaths by Phthisis compared to other Diseases on the Coast of Peru.*—This proportion, for want of satisfactory statistical returns, can only be answered at present in respect to the capital, and even there only approximately. From data before me—let us take the mean of ten years, say from 1841 to 1850, inclusive—the average may be struck at 3,200 deaths annually, of all diseases, in Lima. Of this gross sum, the monthly hospital returns account for 1,700; while a somewhat less proportion—viz., 1,500, are indiscriminately entered in the report of the general cemetery under the title “various diseases.” But from the more specific evidence as to details, furnished by the hospital reports, I will here state the average mortality for the ten years, given, in 1,700 cases yearly, as follows:

From fever.....	600
From dysentery and chronic diarrhoe.....	480
From pleurisy and pneumonia.....	160
From phthisis pulmonalis.....	320
From sundry other diseases.....	140
Total.....	1,700

Thus, next to fever and dysentery, phthisis was the most fatal disease

known in Lima up to the first visitation of yellow fever in that country from the years 1851 to 1854; as described and recorded by me in No. 203 of the Edinburgh Medical and Surgical Journal, but with which, in our present estimate, we have nothing to do. If it can be shown in this way, that in 1,700 hospital cases of fatal termination annually, 320 of these deaths proceed from phthisis, we arrive at an average proportion for the whole mixed population of Lima admitted to hospital treatment. And further, if we put to one side the indefinite number of deaths from infantile diseases, among the 1,500 indiscriminately sent from the different parochial wards of the city, and included under one common head—viz., “various diseases,” there appears no reason why, among the remaining adult population included in the said gross parochial deaths, as distinct from the more detailed and special hospital returns, the ratio of deaths from phthisis, as compared to other diseases, should not be approximately the same as it is found to be in the 1,700 who died in hospital, where the proportion has been pretty reliably ascertained as above, to be about 3 in 17.

3. *In what Stage or Form of Phthisis is it found Curable by a Change from the Climate of the Coast to the Sierra?*—On the coast generally, the most usual exciting cause of pulmonary affections is observed to be some check to the perspiration (resfrio); and not only pulmonary complaints, but rheumatisms, diarrhœ and fevers acknowledge this origin. It is more particularly in spring that we see the effects of this resfrio in hospitals crowded with patients under the influence of febrile catarrh, pneumonia, pleurisy and phthisis pulmonalis. When the frame becomes much debilitated, and especially when the patient is convalescing from some prior ailment, it is a familiar event that under these circumstances, incipient phthisis presents itself, in the form of such admonitory symptoms as growing debility, failing appetite, a slight dry cough, feverish pulse and heat, with restlessness and wakefulness by night.

In the dry and sultry summer months cases occur under a different aspect, in which from the beginning, the gastric system is more ostensibly disordered. The tongue whitish-colored and furred; evening fever and sleepless nights; a short dry cough; depression of spirits, with a foreboding of pulmonary consumption or hæmoptysis on the part of the invalid, are so many symptoms which attend this form of attack. In all cases, whether originally of the gastric or pulmonary type, the patient or physician must not waste time in the employment of unsuccessful special reme-

dies. And the plain reason of this practical admonition, which indeed amounts to a popular maxim in Peru, is that a change from the coast to the mountain climates, graduated as the case may require, will do more to restore health than all the drugs within their ken; and that, if this easy migration be too long deferred, confirmed as well as hopeless phthisis will be the end of disorders so initiated on the coast.

But though it be here necessary to characterize such examples as the above, in pointing out the introductory forms which phthisis assumes in Peru, yet it is important to bear distinctly in mind, that the most common prelude, as well as attendant, of the Lima phthisis pulmonalis, undoubtedly is hæmoptysis; to which there appears to be a remarkable predisposition among all the mixed classes and races of the population, particularly in the white, Creole and brown females of preponderating Indian caste. The healthy, full-chested, mountain Indian mother, if engaged in the maternal duty of suckling her young on the coast, often acquires a predisposition to hæmoptysis, to which she has shown no tendency whatever so long as she lived and nursed on the mountains. On the hill-land the ordinary functions of the digestive organs are vigorously exercised; while on the coast, the long-continued influence of a warm and humid atmosphere not only keeps up a relaxation of the skin, but induces a more languid appetite, and a less perfect and healthy action of the stomach and bowels, etc., which soon tells on the whole system. Europeans soon become lazy, and unwilling to take exercise on foot, in the Lima climate, and suffer a great, though gradual, loss of nervous and muscular power. The offspring, especially the male offspring, of the athletic Spaniard, grows up a comparatively delicate man; but the negro race thrive well on the coast, and retain the muscular power of their progenitors. The white family always suffer more or less from a protracted residence in Lima, where congestive diseases are sure to arise in this race; and more particularly the prevailing disorders,, hæmorrhoids, blennorrhœ, dysentery, etc.

Whenever hæmoptysis shows itself in Lima—which it often does in the Creole ladies after an evening party (tertulla) without any previously perceived sign or suspicion of so great a misfortune—the circumstance is always one of alarm.

The spitting of blood may be very slight at first, and attended with a slight cough; and from so apparently simple a beginning, experience and common observation lead the patient, friends, and physicians together to fear the approach of phthisis, unless the hæmoptysis and cough can be

speedily subdued. As a general rule, in such cases, phthisis is always suspected to lurk in the background, unless its incubation be promptly checked by a change of climate. The ordinary result is, that those so circumstanced, especially when of the delicately-organized, fair Creole race, very rarely trust to medicine or to the assistance of the physician, but at once order the mules and other necessary arrangements for a journey to the interior. It is only by this decided conduct that they hope permanently to guard against a future and more formidable return of hæmoptysis, with its phthysical consequences; and they seek at first notice of the disease to insure a full reparation of the injured respiratory organs, by an adequate continuance in the well-known and appropriated regions of convalescence.

When cases thus inaugurated—which are far too frequent in Lima and other parts of the coast of Peru—go on for a few weeks, not to say months, without decided amendment under medical treatment, we may expect to find on examination positive signs of pulmonary consumption. Now, then, besides occasional returns of hæmoptysis more or less developed, varying from colored sanguineous sputa, to mouthfuls or even cupfuls of blood at a time, there is also more or less cough, soon attended by some degree of pain in the chest; depression of spirits, failure of appetite, with loss of flesh, and lassitude; some notable change in the respiratory sound, or perceptible deviation from the normal murmur, with almost always obscurity of sound on percussion under either the right or the left clavicles. No Lima junta of experienced native or well-acclimated European physicians, would for a moment hesitate to order to the sierra a patient in the condition I have just described. They would deem this transfer of climate as the only security for the patient.

Under such conditions I have witnessed the application of all approved European remedies of every school fully tried, where the phthysical patient was, for one reason or another, destined to run his course on the coast and in the capital, under the eye of able assistants, but always with the same fatal termination.

Cod-liver oil, extensively used of late years, has appeared to alleviate the pulmonary symptoms, by improving the habitual state of the digestive organs, and, as far as I know, it did no more in that country, whatever may have been its success in Europe.

I have sometimes seen cases of pneumonia, imperfectly cured, terminate in chronic phthisis, on the coast of Peru. I have also met with cases of passive and chronic hæmoptysis sustained by pulmonary congestion, or con-

sequent upon heart disease, which never passed into phthisis. But such cases are easily distinguished for the most part, and I may just say in passing, that small doses of spirits of turpentine—say twenty drops thrice a day—have been useful in stopping these passive forms of pulmonary hæmorrhage.

In advanced stages of phthisis, attended with opaque and purulent sputa, colliquative sweats, bronchial and cavernous respiration, with all the aggravated symptoms of hectic fever—even in such a plight, the change from the climate of Lima or the coast to that of the Andine slopes (at modern elevations relatively to the snow line) has been known to prolong life for years, and allow the patient renewed strength to return from time to time to the coast, with marked improvement in general health, as well as in the condition of the lungs, and quite free from fever. But after a few years, such partial convalescents have succumbed to a fresh accession from cold or other exciting cause. But while I state these facts, and could cite individual instances in point, it should never be forgotten that the timeous removal to the sierra is intended to prevent the advancement of phthisis beyond its first initiatory stage in the hæmoptoic form of invasion so prevalent in Peru, or to cause it to retrograde altogether, even from this primary condition. It must be clearly understood, therefore, that I claim the curative effects of the Andine climates, on the broadest grounds of facts and experience, in favor of the early stage only, and not the more advanced periods of pulmonary consumption, when there is, correctly speaking, no sound lung to rescue.

4. *What are the Inland Localities in Peru approved as the best for Convalescence from Phthisis?*—I shall speak of the localities best known in, and most convenient to, the capital; other inland positions of corresponding temperature will naturally be resorted to from other points of the coast, according to their contiguity. On the Pacific coast of the Cordillera, and by the Pasco road from Lima, Haraway (usually pronounced Yaraway) and Canta are considered the best localities; and Huamantanga is also considered favorable; but Canta, above all, on this route, is allowed to be most desirable, being about twenty-five leagues from Lima, and at an elevation of 10,000 feet, on a height overlooking Obrajillo, which latter is in a hollow locked in by hills, and about 1,000 feet lower than Canta. Again, by the Zarma road from Lima, Matucana and San Mateo are favorable climates; the former, according to McLean, is 8,026, and the latter 10,984 feet high; and of the two, Matucana is considered the best. But Canta

is found preferable to either as a place of permanent convalescence. Culluay, enclosed in a basin shaped hollow a few leagues above Obrajillo, on the Pasco road, is 12,000 feet above the sea, and corresponds in climate with Chiela, a few leagues above San Mateo on the Zarma road, at an elevation of above 12,000 feet, according to McLean and Herndon's reckoning. Both these localities are hostile to the phthysical patient.

When it is determined to pass the Cordillera for convalescence, this is usually done by the pass of Yuali or by Tucto, to the temperate valleys of Zarma, Jauja, and Huancayo. The elevation at the pass of the Viuda mountain above Culluay on the one hand, and of that of Antarangra, (also called Antaona) above Chiela on the other, is nearly equal, as far as can be determined by the measurements of different observers. McLean gives the one at 15,543, and Rivero the other—viz: that of the Viuda, at 15,500; the Viuda being 15,968 feet—just 1,000 feet above the line of glaciers or permanent snow. Across the Cordillera gates or passes (Portachuelas,) the patient, if very weak, is conveyed in a litter, and if his direction be Pasco, he cannot remain there, but must at once pass through to Huarriaca, a climate quite analogous in temperature to that of Obrajillo, only with better ventilation. But physicians from Lima always send their phthysical patients (when ordered across the Cordillera) to Zarma and Jauja as the great sites of convalescence; and on the way to these celebrated localities, Matucana is the favorite resting place of phthysical and hæmoptoic patients. It is at this point, in the headland of the valley of the Rimac, enjoying a mild atmosphere on the confines of the air of the coast and the sierra, and just within the rain line, without being yet too wet or cold, that the invalids alluded to receive the first kindly impressions of improving health, and after a longer or shorter stay here, proceed to those more favorable climates, in higher elevations, beyond the first Cordillera.

I should state expressly, that the extensive valley of Jauja, rather cooler in temperature, and also of a few hundred feet more elevation above the sea than Zarma (which Herndon gives at 9,738,) is allowed to have a decided superiority for the recovery of the hæmoptoic and phthysical invalid. The climate of this locality is temperate, and productive of a great variety of grain and green crops. But for the cure of phthisis, the Montana climate, for at least eight months in the year, is too damp, and if the patient be not careful in ordinary ablution—which natives prefer doing when the sun shines—the body is apt to be chilled. Lieutenant Herndon experienced this effect after bathing, and cautions his readers on the subject.

I shall conclude these observations by endeavoring to solve an important problem bearing intimate reference to our present inquiry, and which I find suggested in Dr. James Copland's very elaborate and instructive article on Tubercular Phthisis, recently published in Part 17 of his valuable 'Dictionary of Practical Medicine.'

The problem I allude to is contained in the following extract:—

"Having ascertained the frequency of the disease in the aborigines of a country or climate, it is next of importance to know how far that frequency may be modified, diminished, or increased by change to other countries, either colder or warmer, or of higher or lower elevation, etc., and by the adoption of different food and other habits." (p. 1130, sect. 205.)

I beg the reader's attention to this quotation. I hope I may, without any undue pretension, be allowed to say that I feel not only authorized, but called upon as a matter of duty, to record on this head the result of my long experience in different climates of Peru. I shall therefore remark that, as regards the native white Creole and the brown races of mixed blood, this problem may be considered as solved in cases of incipient phthisis pulmonalis attended with more or less hæmoptysis. By change to other countries—for example, to Chile, which is colder, or to Guayaquil, which is on the *Equator*, and consequently warmer—the effect on the patient from Lima has been so often tried and found injurious, that this is a change of climate which no experienced resident physician would venture to recommend. But by proceeding inland to the valley of Jauja, at the elevation of ten thousand feet above the sea, such incipient phthisical cases—especially of the hæmoptoic type, as I have defined—are always relieved, and almost always cured, provided the patient remain long enough in the uplands to insure this result.

Time is required to bring about a radical organic change, for when individuals apparently quite recovered in Jauja descend to the coast, and particularly to the capital, within a few months the hæmoptic and other phthisical symptoms have been observed to return, rendering a longer residence in the sierra necessary to insure a permanent cure. A year's sojourn in the sanitary climate of the hill-land is usually considered indispensable in serious cases, which have demanded a transandine climate. Milder cases and slighter indications of pulmonary disease, with tubercular development, often yield to a few months' residence at Matucana, Hara-way, or Canta, on the western slope of the Andes, and not far from the resources of the capital.

The unvarying experience of centuries, perfectly relied upon by the natives, proclaims this change from the coast to the sierra climates, to afford undoubted beneficial results to the native white, as well as the diverse shades of brown and olive races of the coast, when laboring under hæmoptysis or pulmonary consumption. The negro is less subject to phthisis, and also reluctant to encounter the bracing air of the Cordillera; his favorite element is the warm and humid air of the coast. The influence of race in the cure of disease is wisely considered by Dr. Copland as of greater importance than has been yet bestowed upon it. In Peru, I found this truth constantly illustrated in practice. For instance, in dysentery, calomel and opium properly and timeously administered, are almost infallible in the Indian race, in the white far less certain, and in the negro cannot be depended upon at all. In yellow fever, turpentine cured as many as fifty per cent. of Indians, apparently in a hopeless condition, being sent to the Lazaretto, as it was believed, in an incurable state; but in the whites, turpentine, as administered by us in Peru, in the year 1854, was of comparatively little power; and as for the negroes, we had no opportunity of ascertaining its effects, since in them this malady, so fatal to the whites, was scarcely experienced, except as a slight fever with headache, which by the aid of common enemata passed off in a few days, leaving no bad symptoms or dregs of disease behind it.

But as regards phthisis, which we have been considering above, I have always seen cases of the character described by me turn out well through migration to the sierra. And I may truly say, that from my own long experience in Peru, and knowledge of these cases, I could easily recount a multitude of permanent cures, also familiar to many native physicians.

This result, as far as the natives are concerned—a goodly mixture and variety of races, we must admit—is simply conclusive matter-of-fact; and now that the communication by Panama is so easy, it may be worth while to test the effects of the Andine climate of Peru on the European phthical invalid. I had little opportunity to do so with the English under my charge in that country, but as far as my experience went, it was as favorable to the European as to the native Creole. But allowances, no doubt, must be made for different habits of life and other causes. The benefit received by Peruvians in the instances in question are too evident to admit of cavil, nor can the good effects be explained on the score of mere change of scenery and the pleasures of traveling. All coast-born Peruvians leave the neighborhood of the sea and their native towns—above all, Lima—

with extreme reluctance, and look upon the sierra as a kind of Siberia—a place of privation and exile. But in spite of all these prejudices and dislikes, when they realize the change to the sierra, they are constantly seen to recover there, under conditions of pulmonary tubercular disease which would undoubtedly terminate fatally, and that very soon, on the coast.

On the mountains, the Limeñian habits of diet are necessarily somewhat changed, and the invalids are naturally led to more exercise in the open air; but yet their in-door habits, with their gambling propensities, will ever predominate, whether on the hills or coast. Cards and dice, indeed, are esteemed not merely an amusement, but an indispensable part of a genteel education.

The air of the mountains—in those elevated localities pointed to as suitable to the recovery of the phthisical invalid—is free from the malaria of the coast, and (as we have already learnt) clear, light, cool, and invigorating—alike removed from the extremes of cold or heat, and, upon the whole, remarkably equable.

On the coast, the natives continually drink in abundance cooling acidulated beverages, as lemonades, pineades, etc., and the classes in better circumstances, (under the idea that a weakening climate needs strengthening food) use much more animal food than a climate so mild, with an indolent life, would seem to require. Indeed, all grades of the population consume great quantities of lard and pork, and also of fish fried in pans of boiling lard. This kind of cooking goes on in the open squares, corners of streets, and market places, every evening and morning, for the convenience of the populace or lower classes, who thus feed in the open air at small cost of money and free from domestic trouble. Sweets, pastry, and fruits they eat at all hours, irrespective of their regular meals. On the removal of invalids from such a population to the sierra, the same facilities do not offer. The mountain diet is necessarily more simple, and the habits of life there assumed, for the time, are more in unison with those of the rural population of the district

EDITORIAL AND MISCELLANEOUS.

NEW ORLEANS SCHOOL OF MEDICINE.—But a few months ago we announced the organization of a new institution in this city, bearing the above title. At that time the ground was unbroken, and so much had necessarily to be accomplished, in order to carry into absolute effect the enlarged scheme of the Faculty, that even some friends of the enterprize whispered doubts whether there was sufficient time to accomplish the desired end. On the 25th of May, not a brick was on the ground where a large and commodious edifice was required, and from distant Europe was to come museum, chemical and philosophical apparatus—indeed, everything requisite for the proper appointment of a first class Medical Institution. What has been done since we first set our shoulders to the wheel?

On Common street, immediately opposite the Charity Hospital gate, is now to be seen one of the most imposing edifices in our city—the *New Orleans School of Medicine*,—complete and fully occupied. Within the building are to be found two of the most beautiful lecture rooms ever constructed, and each capable of seating three hundred persons with comfort. There is the finest dissecting room in the country—well supplied with gas and pure cistern water. There are two museum rooms, capable of containing everything that could be desired. There is a spacious “Dean’s room;” besides as many as eight ante-rooms, for the use of the Professors. There is a Janitor’s room, and, adjoining it, a room to be used as a dispensary. Water is conducted to every room in the house from an ample cistern on the top of the building, and gas finds its way to every point where it may be requisite. The museum room is stored with everything requisite for the complete demonstration of a course, and the Faculty are early expecting two more shipments from Paris of the most elegant preparations ever sent to this country. The obstetric cabinet of wet preparations is probably not equalled in the Southern country. It has been purchased from an ex-professor of one of the oldest schools in the land, and consists of about 200 of the rarest and most valuable specimens from nature, all in most beautiful condition for the closest examination. The chemical and philosophical apparatus is equal to any, having been ordered from the best manufacturers in Europe and America, and without regard to cost. In addition to all this, the doors of the New Orleans School of Medicine were thrown open to the public on the 17th November, and the institution duly,

though unostentatiously, inaugurated. All the introductory lectures have been delivered by the several professors, and the regular course is now progressing. The matriculation book lies on the table in the Dean's room, and on its pages are now to be found enrolled the names of 51 young gentlemen, hailing from Louisiana, Mississippi, Texas, Alabama, Arkansas, Georgia, North Carolina, South Carolina and Nicaragua—and the end is not yet, as “the cry is, still they come.”

Here, then, is what has been done; and we undertake to say that it has all been done by surmounting as many obstacles as were ever thrown in the way of any similar enterprize in the land. But obstacles, difficulties, are nothing in the way of well directed and useful enterprize; and success is only the more honorable and gratifying, when it comes as a triumph over natural and factitious obstructions combined.

We will not here assert the claims of the New Orleans School of Medicine in words plainer than we have used. Her short history tells of the hearty response she has met at the hands of our youth. They have shown themselves satisfied with the spirit which called her into existence, by extending the hand of patronage. We never for a moment doubted that the effort to more fully develop the vast resources of our city, as well as to elevate the general standard of medical education, would meet with this just and generous reward, for progress is the word which echoes loudest throughout our land.

The New Orleans School of Medicine owes much, however, to the enlightened liberality of others besides those who have enrolled themselves as pupils in the institution. To the generosity of our private citizens she is indebted for nearly the whole of her beautiful museum; and to the wisdom and public spirit of the Board of Administrators of the Charity Hospital, she is indebted for that firm footing of equality which makes the wards of this vast sickhouse as valuable to her pupils as to those of any other institution in the State.

A new era in the history of medicine in New Orleans has dawned, and twenty short years will find her truly “the Paris of America.”

THE MEDICAL WORLD.—Our old and amiable friend, Dr. J. V. C. Smith, formerly of the world-renowned *Boston Medical and Surgical Journal* comes down on his hunters with a ludicrous vengeance, and demolishes the foremost of the pack with an easy sangfroid, quite refreshing. The fight is a pretty one, and we predict that many hard words will be bandied before it is over. Orthodoxy, in the minds of many, sits very loosely on the shoulders of the editors of the *Medical World*; for our own

part, we are disposed to be merely "a looker on in Vienna," and in the conviction that "truth is mighty and will prevail" let the world "wag its own way."—*Philadelphia Medical and Surgical Journal*, for November.

We must confess that we are somewhat puzzled by the foregoing. The editor of the *Philadelphia Medical and Surgical Journal* evidently claims Dr. J. V. C. Smith as his "old and amiable friend," and he seems to gloat over the fact of this worse than enemy to legitimate medicine, "demolishing," (as he thinks,) his "hunters." "Show me your company, and I'll tell you who you are," is an old and sterling maxim. The editor edits that which he would have the world believe a legitimate Medical Journal, and yet claims *friendship* with the meanest of quacks. Is the editor *fish*, *flesh*, or *fowl*? Certainly he "looks fishy," and his association, in point of friendship, is decidedly *foul*.

WHAT DOES HE MEAN?—We perceive from the Medical Examiner and the Medical News and Library for November, that Prof. Mutter "has failed to carry out the offer he had made" to the Philadelphia College of Physicians—said College having accepted the trust. Surely the Dr. is not playing the part of the man who was very munificent, and then died for a while, in order to see his own epitaph. The distinguished ex-professor has been praised throughout the land for his liberality, etc., etc., etc., and surely he would not expect so much setting up of type *gratis*.

NORTH CAROLINA JOURNAL OF MEDICINE AND SURGERY.—We are in receipt of the "Prospectus" of a new journal bearing this title. It is to be "an adjunct of the Society (State Medical) in the advancement of Medical Science and the improvement of the Medical Profession." The first number will appear in May or June next. The editor and place of publication are still to be selected by the State Medical Society. In the mean time, Dr. T. S. Satchwell, the Secretary, sends forth the prospectus, and requests all who desire to subscribe to send their names to "Long Creek, New Hanover County, North Carolina." The subscription is \$3 per annum.

Some time ago we noticed in our journal the receipt of the transactions of the North Carolina Medical Society. We are most happy now to see this renewed evidence of the industry of our brethren in the old State, and of their apparent determination to make their mark on the pages of the history of Southern Medicine. The introduction of the locomotive into North Carolina, seems to have waked her people up. Bye the bye, we see

that her physicians are sending some of their pupils to Southern Medical Schools. The New Orleans School of Medicine has two worthy representatives on her matriculation list this season. This is as it should be. All our sister States will soon find that fully as much, if not more, is to be learned in Southern Institutions as in those at the North; and the profession generally will soon discover that New Orleans will be the great central point.

We hope to have the pleasure of exchanging with the North Carolina Journal of Medicine and Surgery.

BOOKS AND PAMPHLETS RECEIVED.

- "ON BANDAGING AND OTHER OPERATIONS OF MINOR SURGERY—By F. W. SARGENT, M. D., etc. *New edition, revised and enlarged, with illustrations.*" Philadelphia: Blanchard & Lea, 1856.—From publishers.
- "OBSTETRICS: THE SCIENCE AND THE ART—By CHARLES D. MEIGS, M. D., *Professor of Midwifery and the Diseases of Women and Children, in Jefferson Medical College at Philadelphia, etc., etc.* Third edition, revised, with one hundred and twenty-nine illustrations. Philadelphia: Blanchard & Lea, 1856."
- "ON THE DISEASES OF INFANTS AND CHILDREN—By FLEETWOOD CHURCHILL, M. D., M. R. J. A., etc., etc. Second American edition, enlarged and revised by the author. Edited with additions, by WM. V. KEATING, M. D., A. M., etc., etc. Philadelphia: Blanchard & Lea, 1856."
- "THE PRACTICAL ANATOMIST: *or the Student's Guide in the Dissecting Room*—By J. M. ALLEN, M. D., etc., etc., with two hundred and sixty-six illustrations. Philadelphia: Blanchard & Lea, 1856."
- "AN INTRODUCTION TO PRACTICAL CHEMISTRY, *including Analysis*—By JOHN E. BOWMAN, F. C. S., etc., etc. Second American, from the second and revised London edition. Philadelphia: Blanchard & Lea, 1856."
- "A TREATISE ON THERAPEUTICS AND PHARMACOLOGY, *or Materia Medica*—By GEORGE B. WOOD, M. D., *Professor of the Theory and Practice in the University of Pennsylvania, etc., etc.*; in two volumes. Philadelphia: J. B. Lippencott & Co., 1856."

STATE MEDICAL SOCIETY IN MISSISSIPPI.—We perceive that our brethren in Mississippi are about organizing a State Medical Society. This is a step in the right direction, and we congratulate our neighbors on having become aroused from their apparent lethargy. It has been our lot to come in contact with the medical men of Mississippi; we know many of them personally; and we can say without flattery, that the profession has not better representatives in any State in the Union. Apropos of State Medical Societies, is our own dead? Or is it only sleeping? Where are the officers?

MEIGS' OBSTETRICS, CHURCHILL ON INFANTS AND CHILDREN, AND WOOD'S THERAPEUTICS AND PHARMACOLOGY.—We have on another page acknowledged the receipt of these valuable works from the enterprising publishers. It is not the province of our journal to give extended reviews of works sent us. We examine every book carefully, and then set forth our honest opinion either for or against. Of the works above named, we have but one opinion, and that is, they are the very best. Not that they have no equal, but that they are not surpassed in real value to medical men. Every practitioner should have them (and no doubt, will,) and the student of medicine will find them invaluable.

SARGENT'S MINOR SURGERY, ALLEN'S DISSECTOR, AND BOWMAN'S INTRODUCTION TO CHEMISTRY.—These are admirably executed handbooks on the different subjects of which they treat. We cannot give our sanction to the use of such books by the student of medicine, but we frankly confess that these appear to be the best of their kind.

A COMPLIMENT.—On the 20th August last, the Medical Profession of France gave a grand banquet to the Medical Officers of the Army and Navy who served in the late war in the East and in the Baltic. Invitations were sent through Lord Clarendon to Medical Officers of the British Army and Navy to represent their respective departments at the banquet.

TO OUR COUNTRY FRIENDS.—We must be permitted to remind our friends in the country that many of them are in arrears to us. Surely they will remit us money enough to pay the actual expenses of the Gazette. Our coffers are empty, and the printer's wife and children must have bread.

REPORT OF DEATHS IN THE CITY OF NEW ORLEANS, for the five weeks ending November 23d, 1856 :—

Men, 136; Women, 62; Boys, 116; Girls, 96—Adults, 198; Children, 212—Males, 252; Females, 158—Colored persons, 60 :—Total, 410.

Diseases—Abscess, 0; Albuminuria, 2; Apoplexy, 7; Do. of Lungs, 0; Asphyxia, 0; Angina, 3; Aneurism, 1; Anemia, 2; Atrophia, 1; Bowels, dis. of, 3; Bronchitis, 5; Burnd, 1; Cancer, 1; Catarrh, 1; Casualties, 7; Cholera, 2; Do. Infantum, 6; Cotic, 2; Congestion of Brain, 6; Do. of Liver, 1; Do. of Lungs, 4; Consumption, 59; Convulsions—Infantile, 33; Cramps, 6; Croup, 4; Debility—Infantile, 4; Delirium Tremens, 5; Diarrhea, 22; Dropsy, 4; Do. in Head, 1; Drowned, 9; Dysentery, 19; Enlargement of Heart, 1; Enteritis, 4; Epilepsy, 2; Fever—Congestive, 3; Do. Peuperal, 1; Do. Typhoid, 3; Do. Typhus, 1; Do. Yellow, 3; Gangrene, —, 1; Do. of Mouth, 1; Gastro-enteritis, 6; Heart, disease of, 6; Do. Do., Volvular, 1; Hooping Cough, 5; Hydrocephalus, 1; Inflammation, 1; Do. of Brain, 4; Do. of Liver, 1; Do. of Lungs, 3; Do. of Stomach, 2; Do. of Throat, 1; Infanticide, 1; Intemperance, 2; Insanity, 1; Jaundice, 1; Killed or murdered, 8, Marasmus—Infantile, 15; Meningitis, 3; Old Age, 10; Palsy, 3; Parturition, difficult, 1; Peritonitis, 1; Pericarditis, 1; Pluritis, 2; Premature Birth, 3; Rheumatism, 1; Retention of Menses, 2; Scrofula, 2; Softening of Brain, 1; Do. of Stomach, 1; Spine, dis. of, 1; Still-born, 17; Suffocation, 1; Teething, 15; Tetanus, 3; Trismus Nascentium, 18; Ulceration, 1; Do. of Bowels, 3; Do. of Throat, 1; Unknown, 3; Worms, 1; Wound of gun, 1; Not stated, 11.

Diseases Classed—Zymotic, 65; Nervous System, 105; Respiratory System, 81; Digestive System, 37; Circulatory System, 13; Urinary System, 1; Generative System, 4; Integumentary System, 0; Sporadics, 33; Locomotive System, 1; External Causes, 16; Age, 10; Not specified, 44—Total, 410.

Ages—Under 1 year, 145; 1 to 2 years, 33; 2 to 5 years, 22; 5 to 10 years, 10; 10 to 15 years, 4; 15 to 20 years, 2; 20 to 25 years, 12; 25 to 30 years, 29; 30 to 40 years, 72; 40 to 50 years, 34; 50 to 60 years, 16; 60 to 70 years, 14; 70 to 80 years, 12; 80 to 90 years, 4; 100 years and upwards, 1—Total, 410.

Nativities—Africa, 1; British America, 1; England, 6; France, 25;

Germany, 24; Ireland, 55; Mexico, 1; Prussia, 1; Scotland, 3; Spain, 2; Sweden, 1; United States, 222; Switzerland, 1; Unknown, 33; West Indies, 2; Not Stated, 32. Total, 410.

ERRATA IN NOVEMBER NUMBER.—On page 515, third line from the top, read *flecting* instead of placing. Same page, 8th line, 2d paragraph, read *smooth*, instead of smoothe. For *fætus*, in sundry places, read *fœtus*. Page 517, 5th line from top, read *Mackensie*, instead of Mackensic. Same page, last line, read *application*, instead application.

EXCERPTA.

PHYSIOLOGICAL DEDUCTIONS REGARDING ANTIMONY.—A long-continued and careful series of experiments have been made by the writer of the present report, on the subject of antimonial poisoning. The experiments have now extended over several months, and have formed the subject of two communications to the Medical Society of London. The following are the conclusions arrived at:

1. That antimony, both as regards the symptoms it induces and the pathological results arising from its administration, excites effects in the dog identical with those which it excites in man; and that experiments on dogs thus afford a fair basis of comparative research.
2. That the skin, peritoneum, cellular tissue, lungs, all absorb antimony in its soluble form with as much certainty as the stomach; and that, whether introduced by any of these channels, or by direct transfusion into the blood through the veins, the diffusion of the poison is equally complete, and its effects specifically the same. (Absolute.)
3. That, after any such mode of introduction, antimony may be detected in the vomited and purged matters, in the stomach and in the contents of the stomach, in the intestines and their contents, and in the lungs, liver, kidneys, blood, urine, heart, and even in serum effused into cavities, if such be present. (Absolute.)
4. That, consequently, the detection of antimony in vomited or purged matters, in the stomach or the contents of the stomach, or in the intestines or in their contents, can no longer be considered as any judicial scientific proof that the poison was introduced into the system by the alimentary canal at any

part, as has been assumed. (Absolute.) 5. That antimony, being absorbed with great rapidity wherever introduced, the point of surface at which it is taken into the system may afford slighter indication of the presence of the poison than any other parts of the organism: *ergo*, that the point of introduction can never be proved by mere chemical analysis. (Absolute.) 6. That antimony applied locally, so as to admit of being rapidly absorbed, seems to excite but little amount of local injury, although it exerts marked local effects when brought by the blood to any surface for elimination: *ergo*, that the appearance of intense redness or inflammation in the stomach or other part of the alimentary canal, in supposed cases of death from antimony, is no scientific proof, nor yet indirect evidence, that the poison was received into the system by this canal. (Absolute.) 7. That the symptoms of poisoning by antimony by large doses are, as a general rule, those of vomiting, purging, and rapid collapse; and that the same symptoms, somewhat modified in their course, result from small doses repeated frequently during a prolonged period. 8. That to this rule exceptions occur, to wit: that antimony, when thrown into the system in a large dose, and in such a way as to prevent its digestion, as by direct injection into the veins, may destroy the muscular power so suddenly that the symptoms of vomiting and purging may not present themselves. And, again, that when introduced very slowly, as by application to a small wound, it may also destroy by producing simple exhaustion, without the specific symptoms of purging or vomiting. 9. That, in all forms of antimonial poisoning, death occurs mainly from failure of the circulation; the respirations being continued after the cessation of the heart's beat. 10. That the pathological appearances incident to antimonial poisoning are—(a) general congestion; (b) marked fluidity of the blood; (c) intense vascularity of the stomach in the course of the greater curvature, and, in some cases, of the rectum and other parts of the canal, but without ulceration; (d) a peculiarly pale yellow or occasional dark glairy secretion on the alimentary surface. Lastly, contrary to the statements of Magendie, antimony seems to excite no other pulmonary lesion than simple congestion. 11. That the election of antimony by different parts of the body is as yet an open question; that the liver, however, would appear to be the structure in which it is most collected when the administration is slow and in small doses; and that the elimination of the poison is attempted by all the secreting surfaces. 12. That, in rapid poisoning, the fatal effect seems due to direct chemical change in the blood, and to indirect effect therefrom on the

heart; while, in slow poisoning, there is superadded an interference with the assimilative powers, the result of the lesions excited in the stomach and other parts of the alimentary canal.

We have further to remark, that, in animals dosed for a few days with antimony, and then kept for periods of seven, fourteen, and twenty-one days, antimony was found in each case in abundant proportions in the liver, and in smaller proportions in the kidney and heart; and also in the contents of the stomach in cases where the animals were destroyed during digestion of food.

The "tolerance" of antimony seems to us to depend entirely on the free elimination of the poison by the kidney.

INFLUENCE OF CONSANGUINITY ON THE OFFSPRING.—Dr. Rilliet, of Geneva, states that he is investigating the subject of the influence of marriage between relatives on their offspring. He delays publishing the whole of his researches till he has rendered them more complete; but in the meantime he gives the following results at which he has arrived.

The lowering of the vital power, as a result of marriage between near relatives, is manifested by results varying in frequency, form, and degree. The following is an enumeration of them in their logical order, though not in that of their relative frequency. 1. Absence of conception. 2. Delay of conception. 3. Imperfect conception (abortions.) 4. Incomplete products of conception (monstrosities.) 5. Children with imperfect physical and moral constitution. 6. Children especially liable to diseases of the nervous system, in the following order of frequency—epilepsy, imbecility or idiocy, deaf-dumbness, paralysis, various cerebral disorders. 7. Children predisposed to diseases connected with the scrofulo-tubercular diathesis. 8. Children which die at an early age in a larger proportion than those born under other conditions. 9. Children which, if they live beyond early infancy, as less able than others to resist disease and death. The health of the family of the married persons, and of these individuals themselves, exercises a certain influence on the degree and kind of depression of the vital force in their children. It is probable that all the deviations from the laws just laid down are due to the health of the predecessors, as well as to the dynamic conditions in which the relatives are at the time of sexual intercourse. Thus it is incontestable—1. That all the children in a family may escape the effect of consanguinity, but this is rare. 2. That in one family some may be attacked, while others escape.

3. That the form of disease varies in those who are attacked. Thus they are not *all* epileptic, deaf and dumb, paralytic, or scrofulous; but they are variously influenced. For example, there may be observed, in one family, an epileptic, an imbecile, a child only physically and morally retarded, and another who will succumb rapidly to a disease which any other child would have resisted. In another family, there will be two idiots or imbeciles, and two healthy children. In a third, there will be one child with congenital paralysis, and several only scrofulous, etc. If certain families appear entirely to escape the action of consanguinity, it is to be feared that its direful effects will be manifested in succeeding generations, ending in the annihilation of the family.

Although no one can claim the priority of an idea of which it is difficult to determine the origin, it is not uninteresting to call to mind the opinions of legislators, philosophers, and theologians on marriage between relations. By the law of Moses, marriages between relations were forbidden as far as the third degree. In Sparta and Athens, marriages between relations of the second degree were indeed permitted by the law; but Socrates, reasoning on physiological grounds, raised his voice against a practice which he believed to be prejudicial to the healthy propagation of the race. The Roman laws interdicted marriage between all relations to the third degree; and even, though less determinedly, between those of the fourth degree. Saint Augustine, Gregory the Great, and the Council of Trent, also interdicted marriages between relations of the second degree. In Protestant countries, the marriage of relations beyond the second degree is in general not forbidden; and it is consequently more easy to observe the effects of marriages of this kind, in families where conjugal fidelity is conjoined with the facility of union between near relatives.—*L'Union Médicale*, May 24th, 1856.

“SAUSAGES.”—At Hammersmith, on Wednesday, James Bridge, a sausage and saveloy maker, of No. 16, New-street, Notting-hill, appeared to answer a summons at the instance of the Kensington Vestry, charging him with having a quantity of meat, which was in the course of preparation for use, totally unfit for the food of man. Mr. Giles Lovett, Inspector of Nuisances for Kensington, said, on Friday afternoon, I went to the defendant's house, and in the back parlor I found a quantity of beef, some of which was in pickle. I took some of the meat out of the tub, and found it was quite putrid. I saw a sack on the floor, in which there were

thirteen large joints of beef, each joint having from four to six ribs or bones in them. I took some of the meat out of the sack, and found it very green and offensive to the smell. There were also some bones and pieces lying about in a similar condition. I further discovered upwards of 50 lbs of sausage-meat made up for use, which I have no doubt was a portion of the same meat. This I could not say was as bad as the other, as it was so highly seasoned with spices, etc. The sausage machine was in a filthy state, and the whole of the premises were in a dirty condition. I called in Mr. Godrich, the Medical Officer of Health, and he at once gave an opinion that the meat was unfit for food. I then seized the meat, and, with the assistance of Pummere, the beadle, I buried it at Wormholt Scrubs. I seized about 150 lbs. altogether. It consisted of sixteen large joints of meat and some small pieces. The defendant was not at home, but his wife informed me that the meat was not so bad, and they were going to make polonies of it. Mr. Francis Godrich, the Medical Officer of Health, said that the meat was quite unfit for human food. The effluvium from the meat and the premises could be experienced outside, although there was a garden between the path and the house. Mr. Dayman said these cases were very difficult to prove, and when they were established he was not disposed to be lenient. The poorer classes were quite at the mercy of these people, and it was necessary that they should be protected from buying unfit food. He thought he passed a most lenient sentence when he ordered the defendant to pay £4, being 5s. for each piece of meat.

ST. BARTHOLOMEW'S HOSPITAL.—*Reduction of a Dislocated Femur by manipular movements only, three weeks after the accident.*—(Under the care of Mr. Wormald.) The following is a good illustration of the efficiency of the manipular method in the reduction of dislocations of the hip. The case has also several other points of interest.

R. E., aged 44, a tall and muscular man, by trade a painter, consulted Mr. Wormald, at his own residence, on July 15. He had that morning walked from his own home, a distance of nearly a mile. He stated that three weeks before he had fallen off a wall a height of fifteen feet, and had been lame in his hip ever since. At the time of the accident he was quite unable to stand, and was carried home to bed, where his hip was examined by a Surgeon, who assured him that it was only sprained. He laid in bed ten days, with the exception of getting up each day to have his bed made

On the eleventh day he got up, and, with the help of a stick, walked down stairs and up again. Since then he had been up daily, and had walked about, but still continued lame. Under these circumstances he now sought further advice. Having had him stripped, Mr. Wormald examined the part, and at once detected a dislocation into the thyroid foramen; the symptoms of which were very well marked. He advised the man to go into the Hospital. On the following day (the 25th after the accident,) reduction was effected in the following manner: The patient, under the influence of chloroform, was laid on his back on a table, a towel for counter-extension being passed round the inside of the hip. The operator then standing in front of the patient, placed the front of the knee of the affected limb in his own axilla, passing his right arm under the thigh from within outwards. With the left hand he then grasped firmly the upper part of the displaced bone, at the same time taking his left wrist in his right hand. In this manner, the thigh was firmly held, easily managed, and great force in rotating and directing its movements could be applied. (a) Mr. Wormald now bending the thigh on the pelvis, accomplished a rotatory movement outwards. The first few attempt had the effect only of breaking down adhesions, and loosening the bone. Complete reduction was, however, after a short time (about 10 minutes) effected, the slipping of the head of bone into its socket being attended by a snap distinctly felt by the operator. The symmetry of the two sides was perfectly restored

In commenting on this case, Mr. Wormald mentioned one treated by himself some years ago, in which, after a failure in the attempt to reduce by pulleys, he succeeded by the plan just described. The patient was a very muscular man, aged 22, and the bone had been out of place six weeks. The dislocation had originally been on to the ilium, but in the attempt with pulleys the head of the bone had been thrown into the ischiatic notch, from which all the force that could be applied by them had failed to remove it.

(a) We have been thus precise in describing the manner of holding the limb, because it is a point to which Mr. Wormald attaches much importance. We believe also with him, that it is the method in which the greatest amount of motor and directing force can be applied with least of inconvenience to the operator. It is not difficult, however, to succeed in the reduction of these dislocations by manipular movements, without attending to any precise rules on this head, the requisite degree of force being easily obtained. Many cases which we have previously recorded have proved this.—J. H.

TARTAR EMETIC IN CROUP.—(*To the Editor of the Medical Times and Gazette.*) SIR, In your number for July 5, appeared a communication from

Dr. Elliotson, advocating the use of heroic doses of tartar emetic in the inflammatory croup of infants. I have waited until now expecting to see some adequate notice taken of so remarkable a letter, my own impression, founded on fifteen years' extensive practice among children, being, that if such views are carried out by the Union Surgeons of England, the deaths from croup and diseases of the air-passages, will be immensely increased. Surely, if any fact in medicine is well established by fatal experience, it is that antimony, like opium, must be either discarded or used with excessive caution among infants. I should myself be sorry to witness the tetanic symptoms, caused in a child 14 months old, by 27 grains of tartar emetic, given in three days, such symptoms would in most cases end, I feel sure, in death.

I do not believe twenty cases of inflammatory croup treated homœopathically, or left to themselves, would end more fatally than twenty cases so treated, even if they had the advantage of not having croup as well as their medicine to contend with. I observe that, about the same date, Dr. Elliotson gave evidence in the case of the medical attendant at Surrey Asylum, "that the patient, to the best of his belief, died of the combined effects of a shower-bath and $1\frac{1}{2}$ grain of tartar emetic;" so that, as a *reductio ad absurdum*, $1\frac{1}{2}$ grain half kills a strong man, while 27 grains, in three days, save the life of a 14 months old child. I respect the great experience of Dr. Elliotson; but the landmarks of Medicine must not be speculatively removed; nor without a great mass of authority must the comparatively safe ipecacuanha be replaced by antimony, one of the most potent of sedative poisons.

On so important a subject I should like to read the opinions of Mr. Hood and other eminent authorities on the diseases of infants.

I am, etc., F. J. PRIOR.

Tewkesbury, August 13, 1856.

PREPARATION OF CAUSTIC WITH GUTTA PERCHA.—M. Richard has recently brought this before the Paris Society of Surgery. Gutta percha in powder is intimately mixed with pulverized caustic in proportions according to the strength required, as, e. g., two parts of chloride of zinc to one of gutta percha. The mixture is to be gently heated in a tube or porcelain capsule, over a spirit lamp. The gutta percha softens, and becomes thoroughly impregnated with the caustic, so that on cooling a gutta percha port-caustic is formed. By its properties the gutta percha possesses the advantages of not altering the tissues, of preserving its consistence

and flexibility, of insinuating itself by its suppleness into either natural or abnormal canals, however tortuous, of assuming any desired form under the fingers of the Surgeon, and of allowing, by reason of the porosity of its molecules, the exudation and unimpeded action of the caustic it contains.—*Journal de Chimie Méd.*, 1856, p. 31.

EFFECTS OF DIGITALIS ON GENERATIVE ORGANS.—M. Brughmanns says, that if from 35 to 40 centigrammes of pulv. digitalis be given for five or six days, the most complete hyposthenizing effect is produced on the generative organs. He has thus given it with very great advantage to combat erotic excitement, whether due to excitable temperament, sedentary life, stimulant regimen, or the privation or excess of venereal pleasures, etc. He also finds it very useful in subduing the inflammatory accidents that so often accompany syphilitic diseases, and which may be prevented by its early administration. It is pre.eminently useful when phymosis or paraphymosis, chordee, epididymitis, or adenitis are either present or feared.—*Rév. Méd. Chir.* XVIII, 355.

TRANSLATIONS FROM FOREIGN JOURNALS—(By Ch. F. J. Lehlbach, M. D., Newark, N. J.)—*External Application of Ergotin.*—Dr. Hoppe, Professor at Basle, recommends in his medical letters the external use of ergotin. This induced Dr. V. Brenner, at Ischl, to make trials with this remedy, and he obtained satisfactory results. According to Dr. V. Brenner, the character of disease prevailing in that region at present, is the typhoid, tending to decomposition of the blood. Acute inflammations are seen very rarely, and those that occur, have a tendency to assume the typhoid form, so that the abstraction of blood is not only of no avail, but acts injuriously, by diminishing the forces of life very rapidly. This typhoid character, which is prevailing, exercises its influence upon wounds and ulcers. It is very difficult in cases of wounds and ulcers to induce a sufficient amount of reaction, necessary to establish the process of healing. Left to themselves, a long time passes, until suppuration and granulation take place. The same thing is observed after operations. Wounds can almost never be brought to heal by first intention. If, on the fourth day, the dressings are removed, the wound gapes as before, without a trace of inflammation and suppuration. Under these circumstances, a dressing as that of ergot is exceedingly valuable. Under its application the wound or the ulcer soon becomes more lively and clean; it begins to suppurate and

granulate; there arise no exuberant granulations, and cicatrization takes a very rapid course. Brenner's usual formula is—

R.—Axung. pore. ʒj;

Ergotini ʒss to ʒij.—m.

With this salve the wound or ulcer is dressed twice a day.

(As a similar typhoid character is prevalent among us at present, and a similar difficulty of inducing healthy inflammation in wounds and ulcers, the remedy recommended thus by good authority might be worth a trial.

—*Trans.*)

POISONING BY OPIUM TREATED WITH BELLADONNA—*By Dr. Mussy, of Cincinnati.*—At midnight, October 29th, I visited a female, 24 years of age, who was said to have taken laudanum for the purpose of self-destruction. I found her comatose, with stertorous breathing; pulse feeble, 50 per minute; surface cold; and pupils contracted to a mere speck. At 7 P. M., the patient had swallowed one ounce of the tincture of opium in the presence of another person. A physician was summoned, who essayed to use the stomach-pump, but so effectual was the resistance as to create the belief that no laudanum had been taken, and the doctor departed. Later, a disciple of Hahnemann administered of his *arca arcanorum*, so as not to offend the delicate stomach, but on a second visit (three hours after the poison was taken) his faith in pellets languished, and becoming heroic, he ordered a strong decoction of coffee, in such quantities as to produce vomiting. The patient was kept "quiet," with cold water to the head, and her friends assured her there was no danger. Two hours later I was called, and finding the patient in the state where effort at resuscitation is usually considered useless, I determined to try the effect of belladonna, as suggested by Dr. Thomas Anderson, and ordering extract of belladonna, eight grains, in two ounces water, I commenced giving by the spoonful. As the fluid accumulated in the mouth, it was necessary to raise the head to cause its passage to the stomach. Each successive act of deglutition was attended with increased difficulty, till I feared to administer any more, lest the patient should strangle. Seven grains of the extract were thus administered. Watching closely for half an hour, I observed the rigidity of the contraction of the pupil to relax slightly, but no other sign of improvement. At one o'clock, by means of a tube passed into the stomach, I injected one ounce of the tincture of belladonna. At two o'clock the pupil had dilated to three times its former diameter; the pulse,

respiration, and temperature of the skin had improved. At three o'clock the skin was warm, pulse, 100 per minute, respiration easy, and the general appearance as of a quiet sleep, but as yet there was no sign of consciousness. Considering the symptoms entirely favorable to recovery, I left the patient. At eight o'clock I called again. The patient had awakened at six o'clock, complained of not being able to see distinctly for a few hours, and could not stand upon her feet till evening. There was no preternatural dilation of the pupil, dryness of the fauces, heat or redness of the skin, resulting from the belladonna (seven grains of the extract and one ounce of the tincture) taken into the stomach.—*Cincinnati Medical Observer.*

ON MORBID ASSOCIATIONS.—*By Dr. Paravicini.* The prize essay bearing this title, though somewhat prolix, abounds in the relation of surgical cases and post-mortem examinations—the object being the exhibition of the mutual influence which disease of the external surface and of internal organs exert upon each other. The following are Dr. Paravicini's conclusions:

1. The morbid reflections exercised by surgical diseases on the viscera, and by these on the external parts, are subject to certain laws that may be termed elective.
2. These laws are, however, not absolute, as the reverberations may sometimes be effected in all parts and directions.
3. In 90 cases in 100, persons succumbing from surgical affections, die in consequence of the supervention of some simple or complex internal visceral disease.
4. In the different affections of the skin, and subcutaneous cellular tissue, as burns, wounds, furuncles, abscesses, etc., the reverberation is usually developed in some part of the gastro enteric canal, and death results from the mischief induced therein. Favus does not follow this rule, but frequently give rise to metastatic abscess, especially of the liver.
5. In inflammatory affections of the deep-seated or sub-aponeurotic cellular tissue, the serous cavities, and especially the pleura, are influenced, and become the seat of fatal disease. Next to, or associated with these, are bronchial or pulmonary affections.
6. In acute affections of the bones, the serous sacs are still the most prone to inflame and induce death—the formation of visceral abscesses dividing this prerogative with them.
7. Simple fractures of the bones of the extremities may produce death indirectly, not only by reason of the immediate reverberation from the local affection, but through broncho-pulmonary affections, favored by the position necessarily

observed, and in the age by pre-existing præcordial mischief. 8. Compound fractures, on the other hand, give rise to purulent infection, and its fatal consequences. 9. Chronic affections of the bones terminate fatally by various internal pathological conditions, and it is incorrectly stated by authors, that purulent infection and tabes alone induce such termination. Visceral tubercle, especially pulmonary, and phlogosis of the serous membranes, are just as frequently observed. 10. Many external forms of disease are essentially only manifestations of concealed internal morbid conditions. Many cases of caries are but symptoms of visceral tuberculosis. 11. Fistula ani, hæmorrhoids, and ulceration of the rectum, frequently betray internal morbid conditions, such as tubercle of the lungs, and phlogosis of the abdominal organs. 12. In surgical affections there may occur simple concomitants also, with given visceral lesions. Varicose ulcers, and sometimes simple, callous, chronic ulcers, are not infrequently associated, especially in adults and aged persons, with præcordial lesions. 13. No absolute law of symmetry prevails in these reverberations, although the internal affection is frequently found on the same side as that suffering surgically. 14. Death by tabes, in the sense understood by pathologists, occurs very rarely, if ever. Patients supposed so to die always present, on anatomical inspection, grave organic changes, and the results of recent acute processes. So, too, individuals dying from chronic internal affections, exhibit the consequences of recently supervening inflammation.—*Annali Universali di Medicina*, Vol. CLIV., page 467.

ON STERILITY IN RELATION TO THE VAGINAL SECRETIONS.—*By Dr. Kuchenmeister.* Scanzoni, Tyler Smith, and others have shown, that while the mucus of the vagina is acid that of the cervix uteri is alkaline. If we compare these observations with those made by Moleschott and Kölliker on the movements of spermatozoa in diluted alkaline fluids, we must perceive that these spermatozoa find a very favorable soil in the cervix uteri or the uterus itself, and a highly unfavorable one amid the acid mucus of the vagina. One of the causes of sterility has long been known to be the deviation of the os uteri from the axis of the pelvis, the semen being unable to enter at once into the cervix. We can expect in such cases few living spermatozoa to reach the os by the laws of capillarity, and none at all if the vaginal secretions are very acid. That motionless spermatozoa will not fructify is well known; but whether motionless spermatozoa brought by capillary action into contact with the uterus are susceptible of

being revived by means of its alkaline mucus, is a point we are unable to reply to, though the probability is that they are not. Scanzoni and Kölliker have further shown, that when the vaginal discharge is abundant the acid reaction is increased and irritation extends to the outer edges and commencement of the cervix of the uterus, and the alkaline mucus then becomes converted into neutral—such neutral condition being a more unfavorable condition for the rituality of the spermatozoa than the alkaline condition of the secretion. Another point in relation to sterility is the complete temporary and periodical closure of the os uteri, shown by Kölliker and Scanzoni to take place. In the ordinary state of things, when no abnormal irritation or secretion of the canal of the cervix is present, this canal is closed from one menstrual period to another by means of mucus, either in the form of an arterial plug or of a drop projecting from the external os. About the menstrual period, however, the secretory power of the canal is aroused, the plug is cast out, and the passage becomes free. In most women this issue of the cervical mucus continues for a short time after menstruation, when the canal again becomes closed: and we see the importance of this in relation to the advice often usefully given to sterile women to admit of coitus just before or just after the period.

In treating a patient for sterility, the practitioner should first of all make an examination with the speculum, to ascertain if any abnormal position or physical obstacle exists, and whether this last depends upon atresia or plugging of the canal with mucus. He must repeat his examination at the menstrual periods, to ascertain when this plug becomes loosened and the canal free, and how long a time elapses after the period before it becomes again closed. Thus, suppose the plug is only separated during or soon after the period, having connexion just prior to it will be of no avail. As the introduction of the semen into the uterus shortly before the occurrence of the period seems to favor impregnation, the canal of the cervix should be cleared out a day or two before this time, and coition then accomplished. In obstinate cases the practitioner, or a midwife acquainted with the use of the speculum, should clean out the cervical canal, by means of a pencil of charpie, and then inject a solution of basic phosphates of soda, or the alkaline carbonates, in the proportions employed by Moleschott and Kölliker, in their experiments upon the spermatozoa. Coitus should take place as soon after as possible. In many cases, the injection of the alkalies would suffice for rendering the canal free. In the most obstinate cases, where much depends upon the removal of the sterility, and

when the canal first opens at the middle of the period, or towards its end, coitus should be recommended during the period itself, when therapeutically and physiologically speaking, the canal is more certainly open, when the spermatozoa can most easily gain admission to the uterine cavity, when the ova have descended into it, and when the salts of the serum of the menstrual blood may confer upon the spermatozoa a more active and more prolonged vivacity.—*Wien Wochenschrift*, No. VI.

GLYCERINE AND TANNIN IN VAGINITIS.—By M. DEMARQUAY.—(*Bulletin de Théraputique*, tome 1. p. 541.)—In the treatment of this affection, M. Demarquay has found a composition, consisting of eighty parts of glycerine and twenty of tannin, of great service. When the vaginitis first appears, the inflammatory symptoms should be calmed by appropriate regimen, baths, and frequent emollient injections. When the first stage of the inflammation has passed away, and the careful introduction of the speculum has become possible, abundant injections of water are to be thrown in, so as to remove all the muco-pus which lines the walls of the vagina, and these are then dried by a plug of charpie placed at the end of a long forceps. Then, three plugs of wadding, well soaked in glycerine and tannin, are to be introduced. Next day, after a bath, the plugs are removed, new injections made, and the dressing repeated. M. Demarquay has never had to have recourse to more than four or five such dressings. After discontinuing them, astringent injections, consisting of infusion of walnut leaves, in which one drachm of alum to the quart has been dissolved, are employed two or three times a day for a week or ten days.

ON EXTRACTION OF CATARACT AT A SINGLE STROKE.—By M. CHASSAIGNAC.—(*Moniteur des Hôpitaux*, No. 74.)—M. Chassaignac observes that several oculists, and especially Wenzel, have extracted cataracts at a single stroke; opening the capsule as the knife traversed the anterior chamber on its way out. This procedure, which has hitherto been justly considered as an exhibition of somewhat dangerous dexterity, may be very well accomplished by the aid of chloroform. It offers, indeed, great advantages; for, whatever may be the dilatation at the moment of commencing the operation, it contracts immediately after the escape of the aqueous humor, and the knife introduced subsequently, may easily wound the iris. In this operation, the pupil remaining wide open, the accident is not to be

feared. In other respects, however, Wenzel's operation was really dangerous, and presented difficulties well nigh insurmountable without the aid of chloroform.

M. Chassaignac habitually employs chloroform in his operations for cataract, and the advantages he has derived from it he thinks are due to the observance of the proper principles that should regulate its employment. No patient can be operated upon with security if he has not been brought to the stage of tolerance, that he sleeps deeply and placidly, without irregular movements, restlessness, cries, or delirium. His respiration is normal, his *facies* excellent, his pulse large and full—presenting, in a word, an assemblage of conditions not only well suited to tranquilize the surgeon, but also eminently fitted to facilitate the execution of the operation. Vastly different is it to operate upon an eye rendered quite immovable, and to act upon one essentially mobile, and incessantly seeking to escape from the action of the instruments. Among the accidents thus avoided, is wounding the hyaloid membrane. It is in fact almost always to this accident, and not to the pressure exerted upon the globe of the eye, that is due the escape of more or less of the vitreous humour after cataract operations. This almost inevitable accident, when operating without chloroform, is easily avoided in the immovable state of the eye. The same may be said of wounds of the iris, and most of the accidents consequent on extraction. The possibility of producing vomiting has been urged as an objection to the use of the chloroform in this operation, but, by waiting before commencing the operation until the period of tolerance has been reached, M. Chassaignac has never met with vomiting or struggling.

CARBONIC ACID AS A MEANS OF INDUCING PREMATURE LABOR.—By SCANZONI.—(*Weiner Med. Wochenschr.*, Nr. 11, 1856.)—Scanzoni, moved by the observation of Brown.Séquard, that carbonic acid irritates the smooth muscular fibre to contraction, and convinced of the insufficiency of his method of exciting labor by suction of the breast, has sought in carbonic acid a new means of exciting labor-pains. In a very small primipara, aged twenty-six, premature labor was indicated by contraction of the pelvis. She was in the 32d-34th week of gestation. The portio vaginalis was five to six inches long, tolerably resistant; outer os uteri fast closed; the head floated; the foetal pulse faintly heard. On the 2d Feb-

ruary, the first application of twenty minutes without subjective or objective alteration.

3d February, eight A. M., for twenty-five minutes, and in the evening, thirty minutes. During the injection, prickling in the vagina; during the day often stinging in the region of the umbilicus; in the evening the portio vaginalis was loosened. The stings were renewed in the night.

4th Feb. Morning and evening, each time half an hour. Prickling in the vagina. In the course of the day, the os uteri admitted the finger through, and the presenting head could be reached. In the night labor-like pains, and towards morning lively contractions of the uterus, which later ceased.

5th Feb. Prickling during the thirty minutes of the injection. The os was opened, yielding, dilatable. Increased vaginal secretion. About noon, painful persisting contractions; about half-past six P. M., rupture of membranes; seven P. M., birth of a living child over three pounds weight. Slight metrorrhagia, which ceased after the removal of the placenta. Recovery good.

Apparatus.—A glass vessel, holding a quart, is fitted with an air-tight cork-stopper, in which are two openings. Through one opening runs a glass tube provided with a funnel; through the other runs a horn tube fitted with an elastic tube three feet long, which ends in a bent uterine tube. Two tablespoonfuls of bicarbonate of soda, dissolved in twelve ounces of water, and a little vinegar, serve to supply the carbonic acid. A conical glass speculum and the uterine tube are introduced into the vagina, the tube being surrounded by a cork filling up the speculum, so as to retain the carbonic acid in the vagine.

ACNE ROSACEA.—Pulverize one drachm of camphor with alcohol, add twice the quantity of milk of sulphur, then a sufficient quantity of distilled water to render the mixture liquid for use. With the finger smear this lotion freely over the face at night, and more sparingly in the morning; the effect is generally soon apparent, and is often most striking.—*London Lancet.*

NEW HÆMOSTATIC.—Dr. Butler, of Ohio, recommends a scruple of tannic acid to be dissolved in an ounce of elixir of vitriol, and 15 drops to be given as a dose—in menorrhagia, etc.—*American Journal of Pharmacy.*

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INTRODUCTORY LECTURE,

Delivered before the Class of the New Orleans School of Medicine, Nov. 1856.

By THOS. PENISTON, M. D., Professor of Clinical Medicine, etc.

Medicine, gentlemen, is that science which has for its object the cure of disease, and the preservation of health. Subsidiary to this, the great object of our profession, many collateral sciences are necessary, in order that the physician may become better qualified to fulfil the important trust confided to him. Thus it is, that anatomy, physiology and chemistry, enter into the programme of medical education: each branch serving to illustrate and improve the others. Without anatomy, we could know nothing of that complicated organism with which we have to deal; without physiology we would not understand the laws of healthy functions, nor appreciate their deranged action; without chemistry we could not have those innumerable preparations, which are the pride of modern science. All these together form one harmonious and magnificent system, the study of which, is worthy of the most elevated faculties of the mind, whilst its practice calls forth the noblest qualities of the heart. However, before entering upon the consideration of those diseases, which it is more especially my province to describe, I propose to give you a short sketch of the history of Medicine: as a retrospective glance at the past, will enable you better to understand and appreciate the present state of our science.

The origin of medicine like that of all science, is lost in the darkness of past ages. Among those nations, of which we have the earliest histories, the sick were placed by the side of the public highway, in order that they might get the advice of those passing by. Ancient Egypt, on its monuments of eternal granite, has not transmitted to us, any records of medical science, yet it was the cradle of civilization, and we can readily conceive, that the healing art must have been cultivated with success, in

that classic land, whence other nations afterwards borrowed their religion, their arts and their sciences. Throughout that mixture of romance and reality that fills the early pages of history, we find that Egypt was long sought by wise men, in order to study that philosophy, which was then considered the sum of all knowledge.

But during many centuries, medicine was reduced to the most crude empiricism, and it does not appear to have been regularly taught, as a science. Certain families seemed to inherit the exclusive privilege of exercising the healing art. At all events, the secrets thus accumulated through successive generations and communicated by oral tradition must at last have included much valuable knowledge. Thus the divine Homer has related in imperishable song, the exploits of Machaon and Podalirius at the siege of Troy. They were the sons of Esculapius, and from him inherited the skill which has made them famous. After leading their cohorts on the battle field, those valiant warriors on returning to the camp, assumed the functions of Surgeons in order to heal the wounded.

It was not until the 40th Olympiad, about the year of the world 3,340, that the philosophers began to feel the necessity of studying the physical man in conjunction with the moral; they endeavored to ascertain in what way the different functions of the human body are performed, and thus, laid the first foundations of physiology.

Nevertheless, the first among the philosophers, who applied themselves to those researches, did not have for their object, the practice of medicine; they studied those vital phenomena merely with the view of throwing light on the intricate questions of science, or to serve as a basis, for their precepts of wisdom. Pythagoras, the first of all the ancient philosophers' deserves an important place in the history of medicine. He appears to have studied attentively the functions of the human body in a state of health, inculcated the necessity of sobriety in eating and drinking—showed the propriety of exercising at the same time both the mind and the body, in order to keep both in perfect equilibrium, and laid down for his disciples certain rules, to be observed in their manner of living, which constitutes one of the first attempts at defining the laws of hygiene.

Pythagoras appears to have paid great attention to the science of mathematics, and, as is generally the case, attributed an exaggerated importance to his favorite study. From it he derived his celebrated theory of numbers, of which some vestiges yet remain, in spite of its vague and empty mysticism. He seems also to have applied the greatest energies of his

mind, in endeavoring to explain the origin of all things, and the nature of the soul.

His metaphysical speculations on those subjects, though devoid of any real foundation, yet show that he rose far above the narrow superstitions of his day. Pythagoras thought that heat was the great "first cause," and the source of that activity which reigns in the Universe: that it was the principle of life, and that the soul of all animals is an emanation of that general principle, the seat of which is in ethereal space. But with all his mysticism, Pythagoras seems to have had a considerable insight into medical knowledge, and whether from policy or belief, he combined its practice with divination and other superstitious rites.

Leaving, however, those fabulous ages, we come at once to Hippocrates, the first great founder of medical science, "*Medicorum Romulus*," to use a favorite expression of Sydenham. This great observer, on whom posterity has bestowed the name of divine, is the most august representative of the healing art in ancient times, and his works still remain, a monument of his extraordinary genius and sagacity. Unfortunately for the divine old man, the field on which his powerful genius was brought to bear, did not afford sufficient scope for his great mind. Deprived of the light of anatomy and physiology—without any insight into physics and chemistry, Hippocrates was forced to confine his high powers of observation to the external phenomena of disease, and to ascertain the part which certain modifying agents exercised on their duration.

Notwithstanding these disadvantages he has left us numerous works, showing his unrivalled talent in describing the different modifications of disease, and of analyzing the influence of surrounding objects, such as air, food, etc., on the human system. His remarks on the *vis medicatrix naturæ*, on prognosis and the critical days, have excited the admiration of all true observers in every age. His aphorisms have been, for the most part, cited as the very catechism of medical faith;—but the time has now gone by when the sayings of Hippocrates were considered as oracular.

As an example of his investigating mind, he appears to have discovered the method of succussion—nay of auscultation itself in the diagnosis of the diseases of the chest. Even Laënnec recalls the forgotten passages, in which Hippocrates proposed both of these methods of investigation. We find, in his treatise "*De Morbis*," the following words, by which he explains the differential diagnosis between simple hydrothorax and purulent effusion. "You may know that the chest contains water and not pus, if on

applying the ear for some time on the ribs, you distinguish a murmur similar to that of boiling vinegar." Two thousand years were destined to elapse before this emanation of sublime wisdom was again vivified and marvelously developed by the genius of Laënnec !

The successors of Hippocrates did not follow the example of this great man, and confine their attention to the accurate study of nature ; disdaining the slow but certain methods of observation and experience, they wandered in the trackless regions of metaphysics, and substituted endless speculations on the cause and origin of all things, to the description of pathological phenomena.

Three distinct sects divided the field of medical science, the *Dogmatists*, *Emperics* and *Methodists*. The first following the example of Plato, substituted empty discussions on the nature of the soul, the constitution of the universe and the origin of matter, to the study of laws which are cognizable by our senses.

The empirical sect adopted the methods of observation, which had been so successful in the hands of Hippocrates : the rules which they prescribed as necessary for sound investigation and logical conclusions may yet serve as models of inductive reasoning. Although their doctrines do not seem to have gained many proselytes, they nevertheless enriched our science with many valuable additions, especially in materia medica and therapeutics.

The sect of Methodists founded by Themison, were the Eclectics of that distant day. They endeavored to reconcile the conflicting systems of the Dogmatists and Emperics, and introduced the terms of *laxum*, *strictum* and *mixum* in order to explain all the phenomena of disease; that is to say, they reduced all diseases to three kinds, according as the solid tissues of the body were in a state of *constriction*, *relaxation*, or the intermediate condition.

It would be an endless and unprofitable task to enter into the history of all the dogmas and opinions which successively occupied the medical world; suffice it to say, that they added but few substantial discoveries, to those of their predecessors.

Passing over a host of inferior writers, we come down to the second century of our present era, in which lived and flourished Claudius Galen of Pergamos, who, next to Hippocrates, is the most illustrious name of antiquity. In this extraordinary man, seemed to have been combined, a brilliant imagination and uncommon eloquence, to the greatest erudition and untiring industry. The numerous works which he left on almost

every branch of medicine, are invaluable to the antiquarian and the historian, as we are principally indebted to them for an account of those systems which preceded his own time. He attempted the Herculean task of reconciling with each other, the conflicting theories which still divided the medical world; to blend in one grand and magnificent superstructure, the dogmas of Hippocrates and Plato with those of Aristotle and Epicure.

Notwithstanding his incomparable genius, we recognize at every step, the jarring and discordant elements which he vainly attempted to harmonize. Yet so great were his talents and learning that Galen was long considered as an unrivalled model, which we might admire, but could never equal. Now, however, that the Idol of Pergamos, has long since been taken from its pedestal, and stripped of its veil of infallibility, we recognize in every page the grossest errors in anatomy, physiology and pathology. Blinded by an unfortunate application of the philosophy of Aristotle, he often wanders in a maze of sterile discussion, and we seek in vain through his ponderous folios, for those simple, yet accurate descriptions of disease, which characterize the writings of Hippocrates.

After Galen the medical horizon grew dim and cloudy, until darkness settled on the face of the scientific world. During the long reign of barbarism which followed the downfall of the Roman Empire, the progress of medicine was entirely suspended, and strange to say, the healing art, banished from Christian Europe during many centuries of ignorance, rapine and blood-shed, found refuge among the Arabs.

In the eighth century, the star of science, so long eclipsed, again rose with increased splendor and brilliancy. The school of Cordova in Spain, was the first which inaugurated the study of medicine, and although the Arabs added no new materials, yet modern science is indebted to them for the preservation of those precious works of antiquity; which would otherwise have been lost, during the darkness of barbarism and ignorance.

In the fourteenth and fifteenth centuries, the dawn of a new civilization appeared on the face of modern Europe, and the spirit of true observation awoke from the Lethean sleep into which it had long been plunged. In every department of medical science, new and important discoveries are brought to light, many prejudices are uprooted and a new world of science seems to reward the labors of diligent observers. Paracelsus who lived in the beginning of the sixteenth century, was the founder of a new school of medical literature; he applied the pretended arts of divination and magic, to the diagnosis and treatment of different diseases; but notwithstanding all his

errors and failings Paracelsus exercised very considerable influence on the progress of medicine; in fact, we must look upon him as the first representative of modern chemistry. From the pursuit of those brilliant, but empty phantoms of the alchemists, viz: the Philosopher's stone, the elixir of life and the transmutation of metals, from their crucibles and alembics, came forth a new science: that which treats of the elementary composition of all created matter, whether solid, liquid or gaseous.

The discovery of the circulation of the blood, and the adoption of improved methods of investigation, are sufficient to characterize the seventeenth century, were it not also rendered famous by the progress of anatomical and physiological science—those two corner stones of the medical superstructure.

Soon after this time, we see the origin of numerous systems in medicine; all attempting to explain, by reference to general and abstract principles, the laws of pathology, the nature of disease, or the connection of mind and matter.

Van Helmont was the first of these medical philosophers. He invoked an intangible spiritual principle, which he called the "Archea:" this element, distinct and separate from the soul, was the presiding genius which regulated health and disease. He invested his fanciful being, with intelligence, the power of volition and susceptibility of different passions, such as pleasure, anger, etc. This was his physiology. We can imagine in what consisted his pathology and therapeutics: to soothe and conciliate the Archea, these were the indications—certain mystic words and ceremonies; such was his *materia medica*.

But if at this day, the system of Van Helmont appears to us a mere tissue of absurdity and nonsense; we must congratulate ourselves upon living in more enlightened times than those in which such theories found numerous and zealous partizans. In fact, it was adapted to the age in which he lived, and forms one link in that chain of causes by which modern medicine has attained its present exalted position. Progress and perfection are the attributes of man: to trace the continued development of this law, is the exalted though difficult task of the historian.

At the end of the seventeenth and the commencement of the eighteenth century, Sydenham and Baglivi gave a new impetus to correct medical observation: their researches on the nature and cause of disease, are the first systematic attempts to enlighten the complicated questions of etiology. The first of these great men, has been surnamed "The English Hippo-

crates." He excelled in the description of disease, and his delineations of symptoms, are master pieces of accurate, analytical investigation. Baglivi, the contemporary of Sydenham, was a disciple of the true Hippocratic school: he said that observation and reason, are the two points on which turn all medical science. Living at a time, when conjectures and fanciful theories were the order of the day, they are entitled to the credit of having shown the evil effects of hypothesis on the progress of medicine; whereas observation and experience, are the only infallible methods of advancement and perfection.

The brilliant genius of Boerhave and Frederic Hoffman, illustrates the eighteenth century: both belonged to that celebrated school, which attempted to describe all physiological laws on mathematical principles. In the preceding period François de le Bœ Sylvius, had founded that system which explained all the functions of the animal economy, and the different causes of disease by reference to chemical laws—or rather by a misapplication of these laws.

The errors of this doctrine were soon palpable: another system became necessary, to satisfy that morbid propensity, which then affected to explain the origin and nature of all physiological phenomena by the known laws of inert matter. And now medicine seemed to have become a branch of mathematics: the iatro-mechanical school compared the human body to a hydraulic machine.

Thus it was, that they applied mathematical rules, to ascertain the mechanism of the circulation, the movement of the heart, the function of respiration and the digestive process: the latter was explained on the principle of direct compression on the alimentary materials, equivalent to a weight, of one thousand three hundred and fifty pounds.

To the explanation of such questions as these, by the laws of mechanics, Boerhave applied all the faculties of his powerful mind, until fascinated by his eloquence and genius, most of his contemporaries became converts to his doctrines. The system of Boerhave was superseded by that of Stahl. Spiritualism succeeded materialism. Stahl laid down as a fundamental principle, that all matter is essentially passive, and that bodies can only be set in motion by the intervention of intangible, spiritual elements, among which he placed that principle which he called the soul.

But when Leibnitz objected to this great theory, that the soul cannot govern the body independently of the laws of mechanical force; because the soul which is intangible cannot influence a solid tangible substance, by

the ordinary laws of physics; Stahl answered, that the soul possessed some of the properties of matter, viz: space and divisibility, and that it only attained immortality by divine favor.

Thus it seems that the connection between mind and matter has been the grand stumbling-block in medical philosophy. The different theories on the subject were as fleeting, as they were abstruse and chimerical, generally sinking into oblivion, when the mind which originated and the talent which defended them had passed away.

In the middle of the eighteenth century appeared Haller and Morgagni. To Haller modern physiology is indebted for much of its present state of advancement. He was the first who applied the experimental method to physiology, and his researches on the influence of the nervous system, are models of scientific investigation. He was also the originator of that system, which explained the movements of the different organs by means of the irritability of the muscular tissue, and he demonstrated this property by actual experiment.

In another department of medical science we find Morgagni, who is celebrated as the founder of pathological anatomy, and the originator of a new medical era. His immortal treatise *De Sedibus et Causis Morborum*, is one of the most splendid monuments ever elevated to the art of observation in medicine. The researches of Morgagni contributed powerfully to fix the seat of different diseases, and localize them in the different organs; whereas before they were considered as "*morbi sine materia*." In fact his splendid work is the most admirable refutation of those ultra-vitalists, who effected a profound contempt for the application of anatomy to medicine, such especially, as the theory of Stahl, so absurdly styled: "*Theoria medica vera*."

At the same time that a happy application of the inductive method thus enriched medical science, with some of its most valuable treasures, the genius of analytical investigation also attempted the task of introducing order and harmony into the confused mass, which until then characterized all the sources of medical literature. Sauvages, Linneus, Vogel and others, published their works on medical nomenclature and classification. Brown was the last representative of the ancient dogmas. He divided all diseases into two great classes—the sthenic and asthenic; the former included all those which are characterized by the fulness and excitement of the circulatory apparatus; the latter, or asthenic, all the diseases which are produced by a deficiency in the total mass of the blood, and impaired vital energy. As

according to him, this latter class of disease was by far the most numerous, he applied his treatment accordingly, and in many cases of a highly inflammatory nature, he used stimulants with such fatal results, that it soon deserved the epithet of "incendiary method," which was bestowed upon it.

At the end of the eighteenth century, lived Bichat and Pinel. Those great men contributed in an extraordinary degree to bring about that reform, in the methods and principles of medical investigation, which was required by the advanced state of civilization and learning. Bichat was the first, who distinguished from each other, the different organized elements of the human body. He showed that identity of structure in the different systems, is accompanied by identical diseases; that the serous tissues, for instance, have the same properties, whether as in the pericardium they invest the heart, as in the arachnoid they invest the brain, or as the pleura they invest the lungs. In fact, he was the creator of general anatomy, a science which has thrown torrents of light, both on physiology and practical medicine. Endowed with the highest powers of analysis and generalization, Bichat was the Newton of physiology. But he did not live to complete the work he had so gloriously commenced: he died at the early age of thirty-two! and from what he had already achieved, what may we not have expected from his more mature years?

By introducing method into the confused classifications which had hitherto been adopted, Pinel achieved the most enviable reputation. During fifteen or twenty years, his great work, entitled "*Medical Nosology*," was the very gospel of medical science. Before his time, all diseases were arranged into two great classes, the *acute* and the *chronic*; but each of the two classes contained a great number of maladies having little or no analogy with each other. Pinel divided them into five great classes: Firstly, *fevers*; secondly, *phlegmasias*; thirdly, *hemorrhages*; fourthly, *neuroses*, or disorders of the nervous system; and, fifthly, *organic lesions*. Although this classification was far from being irreproachable, as he himself admits, yet it served as the prelude to other and more complete systems of nosology.

As medical science progresses, and we become better acquainted with the essence of disease, then it becomes necessary to alter medical nomenclature, and to change the order and genera to which they previously belonged; for it should not be forgotten, that every nosological system, is to a great extent artificial: that it is rather an instrument for the discovery of truth, than in itself an expression of truth; therefore it is that the work

of Pinel is almost forgotten, or only referred to, in scientific researches, or historical investigation.

But greater than he—greatest of all the moderns—comes the immortal Laënnec. Under the bright inspirations of his genius, a new sense is applied to the investigation of disease. Minerva like, the science of diagnosis came forth from his hands so perfect and beautiful in all its details, that the labors of two generations have scarcely added any thing to this great master-piece of modern times. The diagnosis of pulmonary disease—previously so difficult and complicated that Baglivi exclaimed: *O quantum difficile morbos pulmonum curare. O quantum difficilius eos diagnoscere!* has now almost attained the certainty of mathematical precision.

But while paying our tribute of admiration to the discoverer of *auscultation*, let us not forget the labors of the illustrious Corvisart, who by his treatise on the organic diseases of the heart, threw a new light on their pathology and treatment.

And now, gentlemen, we have reached that epoch in the history of our science, when the accumulation of materials makes it a difficult task to follow the progress of medicine. A host of illustrious names, the princes of the science, crowd in upon us at every step.

In 1808, appeared Broussais's history of *Chronic Inflammations*, a work bearing the impress of this brilliant, but erratic genius; at one time the object of adulation and fanatical enthusiasm; at a later day, the sad emblem of misguided genius and altered fortunes. Since that time, the Hunters, the Abernethys, the Coopers in England—the works of Andral, Louis, Bouillaud, Rostan, Rayer, Chomel, Grisolle, Valleix, and others as familiar to us as household words, constitute that splendid galaxy of talent which is the pride of modern science.

Medicine, having for so many ages wandered in the dark paths of mysticism and hypothesis, has at length returned to its true purpose and vocation; in truth it may now be called the school of modern medical observation.

In the words of an eloquent American writer, this school is characterized by its strict adherence to the study and analysis of morbid phenomena and their relationships; by the accuracy, the positiveness and the minute detail, which it has carried into this study and analysis; and by its rejection, (as an essential or legitimate element of science), of all *a priori* reasoning or speculation. The spirit which animates and moves it, is express-

ed in the saying of Rousseau : " That all science is in the facts or phenomena of nature and their relationships, and not in the mind of man, which discovers and interprets them." It is the true Protestant school of medicine. It either rejects as apocryphal, or holds as of no binding authority all the traditions of the fathers, unless they are sustained and sanctioned by its own experience. It appeals in all things directly to nature, and it asks, not what may be, or what ought to be, but what is. Not *how* things are? or *why* they are? but again what they are? Holding that medical, as well as all other science, should have but one aim and object—to ascertain the actual condition of things, it professes an entire scientific indifference, as to the issue and result of its researches, provided only, that this issue and result approach in the nearest possible degree to the absolute truth; and it adopts and pursues what it conceives to be the only method and means of accomplishing this end.

Such, gentlemen, is a summary sketch of the origin and progress of medicine. We have thus seen, that the *theories* which ruled the medical world, have successively disappeared one after another, like shadows descending the inevitable slope to oblivion, while many of the *facts* recorded two centuries before the Christian era, recur in the daily walks of our profession, precisely as the Father of Medicine inscribed them on his tablets. Had the successors of Hippocrates followed his example and investigated the nature of disease, its symptoms, its diagnosis and its pathological effects, instead of their vain and unprofitable speculations on metaphysical subjects, we should now have attained that degree of perfection and certainty in medicine, which many future generations may not accomplish. But although observation and experience are the indispensable requisites of medical science, although it is even so far consecrated by popular belief, that when you will have commenced your professional career, many a time and oft will you find some venerable practitioner preferred to your more youthful talent, on the sole ground that age and experience must bring wisdom—yet was this plain indication overlooked during many centuries.

Clinical medicine is an institution of modern times. It is true that few and far between, some illustrious men have taught medicine at the bed-side of the patient. François de Boë Sylvius, as far back as 1658, instituted clinical lectures in the Hospital confided to his charge, at Leyden. The illustrious Boerhave, many years afterwards, revived the forgotten example of his predecessor, in the same Hospital of Leyden, and from that school came forth numerous disciples, who propagated his method all over Eu-

rope. In 1753, a Hospital for clinical instruction was founded in Vienna, by the celebrated Vanswieten, and from that day to the present time, this capital has been justly famous for its great practical advantages to the medical student.

Paris, the modern Alexandria, is indebted to its magnificent hospitals for that perfection in medical investigation, which has rendered its school so justly famous.

The field which has given such an abundant harvest to the European masters, is, in our own country, as yet, comparatively sterile and uncultivated. Let us hope that the Medical Schools of New Orleans have inaugurated a new era in medical instruction. The wards of our magnificent Hospital, teeming with every variety of disease, afford ample materials for the diligent observer. There it is, that the relation of teacher and student assumes a most important and interesting application. On us devolves the duty of explaining to you the complicated phenomena of disease, to demonstrate at the bed-side of the patient, those every varying yet characteristic signs which guide the physician in his mission of mercy. Here it is that an education of the senses is necessary, in order to enable you to appreciate those delicate yet unerring signs which are the conquest of modern science. But if assiduity and diligence are necessary, in order that you may avail yourselves of those advantages which are here given to you with no sparing hand, I cannot but feel the deep sense of my responsibility to you. To guide you in the paths of science is a serious undertaking; your future success will, in a great measure, depend on the manner in which I shall have fulfilled my mandate. Be mine the task of revealing to your minds the mysteries of the healing art, of smoothing that rough ascent which leads to honor and distinction. Remember, gentlemen, that the life of a physician, is a life of toil; from the day when you enter the portals of the temple of science, to the closing of your career, care and anxiety will often accompany you; prepare yourselves, therefore, diligently for those occasions, when all your skill and talent will be called forth, to battle against the "King of terrors." As you go round the wards of the Hospital, you will have abundant opportunities to acquire practical information, to learn the art of recognizing at the bed-side of the patient those symptoms which are characteristic of and peculiar to each disease, and at the same time you will see the application of remedies and their effects upon the system. Do not imagine that the art of observing disease consists in a mere superficial examination of those ap-

pearances which are immediately cognizable by the senses : there is much in the mode of examining a patient, which can only be acquired by practice and experience. In short, there is a certain medical tact, which must be cultivated with assiduity, before it can be sufficiently developed. We must accommodate ourselves to the ever varying peculiarities of character and disease, so much so indeed, that a successful medical examination sometimes requires as much discrimination and adroitness as would be displayed by the most astute lawyer, in extorting the truth from a refractory witness.

Then, again, you have the important class of physical signs, which include the application of auscultation and percussion to the diagnosis of disease. These, gentlemen, will require on your part assiduity and perseverance : the ear has to undergo an education, which is indispensable, in order that you may realize the advantages of this invaluable discovery ; thus, if on one occasion you have failed to discover some sign pointed out to you, do not despair on that account, another attempt will be more successful, and reward you in proportion as its acquisition was difficult and protracted.

As medicine was slow in its growth, so does its acquisition require time and attention : had you the genius of Hippocrates and Galen, we could not teach you medicine ere a certain time had rolled over your heads : in fact, medicine is a science, founded upon experience and analogy, and you must lay this foundation before you can successfully apply your talents to the diagnosis and treatment of disease. And here lies the great advantage to be derived from the wards of our great Hospital ; it is that you may see in a given time a large variety of those very diseases you may soon be called upon to treat. Do not let me, however, be misunderstood. I do not wish you to crowd your minds, at one time, with a large number of badly observed and ill-understood cases : it is much better to confine your attention to a smaller number, whose symptoms you can accurately note, whose treatment you can well store in your memory, than to waste your time, and harrass your mind with an abortive attempt at grasping too much at one time.

Then, again, you must familiarize yourselves with the administration of remedies ;—the art of prescribing in fact, which forms so powerful an instrument in the hands of the practitioner, requires close attention ere you can master all its complicated details. But, gentlemen, if I have thus pointed out to you the responsibility of our profession, I would not have you be discouraged at the prospect which lies before you. All these difficulties

will disappear, like empty shadows, before the energy of a willing mind and if the science of medicine were too easy in its acquisition, would it not be unworthy of pursuit by an exalted intellect? No, gentlemen, the profession you have embraced, is one of the most elevated which the genius of man has ever grasped; its application calls forth all those virtues which adorn the human heart, the reward of which lies in the esteem and love of your fellow-men, is sufficient to inspire you with that diligence and industry which must overcome all obstacles.

METRITIS IN PREGNANCY.

Messrs. Editors: Not long since rather a rare case came under my care' and thinking it might not be without interest to you, I have concluded to furnish you with its history.

Some time in February last, I was asked to visit a mulattress, named Mary. On arriving at the Hospital, I was informed by the nurse that "the patient's womb had come down." I immediately made a digital exploration, and found there was complete protrusion, with unusual tenderness of the organ, as well as enlargement, and a very free muco-purulent discharge. The patient had slight fever and considerable abdominal tenderness. I applied leeches to the os uteri and pubic region, gave her some saline cathartics, and followed their effects with tart. antim. et potass., with spts. nit. dulcis, and had the satisfaction to find the fever abate; abdominal tenderness to subside, and the matrix to return to its usual position; and the patient seemed well, except when she would walk up or down stairs. The uterus remained in its proper place; but any sudden jar, as a cough, would cause it to protrude, though this was not attended with much suffering. I used pessaries of different construction, but without effect.

About two months from the first attack I was again called to see the patient, and found the womb protruded, very much enlarged, and the patient with severe fever, accompanied with delirium, a filiform pulse, and beating 100 per minute. I first bled her to syncope, used hot fomentations to the abdomen, and at the end of four hours put twenty leeches to the belly, allowing them to remain until they were full. I then administered two grs. calomel with $\frac{1}{2}$ gr. of opium every three hours, until full narcosis was produced, when I withdrew the narcotic but continued the mercury in the

same doses as before and at the same intervals. In twelve hours from the commencement of the treatment she had copious evacuations of a green color and an intensely foetid odor. The womb was freely fomented and occasionally a few leeches were applied to the os, and it began gradually to return into the pelvic cavity. The fever and pain again subsided, and in ten days I considered her free from all evidence of serious disease. She remained in the Hospital and walked about, but was extremely weak and greatly reduced. What I deemed suitable diet was ordered, but no medicine except a weak infusion of gentian. Four or five months had now elapsed and she seemed not to regain her strength, was poor, and had occasional light fever, loss of appetite and quite an abdominal enlargement. I examined her per vaginum, found the os uteri high in the pelvis and neck much shortened. She told me she felt frequent "trembling" in the tumour, and had felt them for a month past. I applied my ear and heard distinctly the placental sound. From this time I did nothing for her, and felt satisfied she was pregnant, and so informed her; but she said it was impossible, and seemed to think "some other live thing than a baby was growing in her." I examined her from time to time, and at last heard distinctly the pulsations of the foetal heart; besides the quivering or "trembling" sensation had been replaced by the ordinary motion felt by females when pregnant. The fact seemed plain to my mind that my diagnosis was correct, but the patient could not for a moment be induced to think with me, and seemed harrassed with unpleasant forebodings of her situation, and became restless, had no appetite, and I was absolutely compelled to almost force her to take food. At night I gave her a full narcotic and continued this system for some time with absolute benefit. At the end of ten months from her first attack, she was safely delivered of a child which is now living and in health. She continued skeptical until she was delivered. There may be cases on record of acute metritis in the gravid uterus, but it is the first I have seen, nor can I find any mention of such a case in any author now at my command. If you should deem this of sufficient interest for publication you are at liberty to do so.

Yours, etc.,

AMZI MARTIN.

MANCAAC, LA. Nov. 28, 1856.

[If we could possibly spare the time, we should take the greatest pleasure in looking up authorities on the subject of inflammation of the gravid womb for our correspondent. On turning to our note book, however, we

find a full account of a case of the most palpable metritis occurring in a woman who had reached the *eighth month* of pregnancy. This case occurred some nine years ago, and was seen by several eminent medical gentlemen, and the diagnosis seemed clear. The patient did not lose her child, but recovered from the metritis, carried her child to full term, and we delivered her safely. Our correspondent is, of course, aware that inflammation of the placenta is recorded as one of the causes of abortion or premature delivery, and it is quite as easy to conceive of one as of the other. Fortunately either affection is rare.—ED.]

DISLOCATION OF THE FEMUR UPWARDS, UPON THE DORSUM OF THE ILIUM—REDUCTION EFFECTED 64 DAYS AFTER THE OCCURRENCE OF THE INJURY.

Reported by THOMAS CAMPBELL, Medical Student of the "New Orleans School of Medicine."

Messrs. Editors.—The following case will prove interesting, from the fact that it is an exception to the law laid down by Sir Astley Cooper, "That the reduction of a dislocated femur of eight weeks existence should never be attempted." Fortunately for surgery and suffering humanity, surgeons have not always been governed by the maxim of the great English author, and we have now recorded in the annals of medical science many cases of coxo-femoral dislocations, in which reduction was effected long after the expiration of this period. A surgeon by the name of Gockel, cites a case of successful reduction of six months' standing; Guillaume, of Salicet, reports another, after one year's existence. McFarlane reduced a luxation upwards on the dorsum of the ilium, on the 65th day; Dupuytren another on the 78th day.

The subject of this case, a stout, robust and healthy individual, W. L. D***, aged 34 years, an overseer by trade, a resident of Claiborne County, Miss., was admitted into the Charity Hospital on the 10th day of November, 1856, suffering from affection of the hip joint. On examination of the parts, the left leg was found shortened to the amount of three inches, the limb rotated inwards, and the toes perceptibly inverted and resting upon the instep of the sound foot. The knee was slightly flexed upon the thigh, and the thigh upon the pelvis. The usual roundness of the gluteal region had become distorted, and the upper part of the thigh enlarged, in consequence of the approximation of the muscular attachments. The head of the bone could be felt in its new position, and the trochanter major was placed nearer to the anterior superior spinous process of the ilium. The

movements of the joint were greatly impaired; abduction and eversion were not practicable.

Doctors Ed. Martin and Choppin recognized immediately the nature of the injury, and diagnosticated a dislocation of the femur upwards, on the dorsum of the ilium. The idea of a fracture of the neck of the femur was not dismissible, because there was no eversion of the limb, neither was there any crepitus on extension or rotation. Upon being questioned as to the cause of the injury, the patient related that on the 10th day of September last, while employed on the plantation of Col. Stamps, the gin got out of order; that he placed himself on his knees to examine the gudgeon of the driving wheel—and that while in that position the mules started suddenly, and the lever to which they were attached struck him violently upon the sacrum and prostrated him. The limb was in a state of abduction when the violence acted upon it. The patient himself was conscious of the injury, for he immediately ordered the negroes present to pull upon his leg, in order to put his hip into place. Their attempt was, however, unsuccessful. He then sent for a young physician of the neighborhood, who, fearing to undertake the responsibility, advised him to go to Natchez to seek relief. He accordingly repaired to Natchez, where he consulted several physicians, who, suspecting the nature of his injury, made an attempt at reduction with the pulleys; but having failed, they were led to believe that there existed a fracture of the neck of the femur. He was treated accordingly, and after eight weeks, finding that he was as bad as ever, he concluded to enter the Charity Hospital.

On the 14th of November, Dr. Choppin called the attention of the class to the case, and after explaining its interesting points, determined upon making an attempt at reduction. Drs. Ed. Martin and Choppin had the patient placed in the amphitheatre of the Charity Hospital, upon a strong table placed between two rings fixed on posts—the counter-extending force was made by placing a jack towel between the injured thigh and perineum, and fixing it to one ring. The pulleys were now applied to a towel fixed with a clove-hitch knot immediately above the knee by one end, while the other end was fixed to the other ring. Extension, slow and gradual, but steady, was made, until the head of the bone approached the acetabulum, when Dr. Choppin rotated the limb inwards and the head of the bone slipped into the socket. The time consumed in effecting this was about one hour and a half. The pulleys being detached, the limb, the motion of which had been greatly impaired, could be moved in every direction.

The leg was lengthened to the extent of half an inch, probably on account of the acetabulum being partially filled up. A Liston's splint was applied to the limb, in order to give time to the capsular ligament to cicatrize. The patient remained under Dr. Ed. Martin's care from that time until the 15th day of December, when he was discharged from the Charity Hospital, having entirely recovered the use of his limb.

SPECIAL SELECTIONS.

LECTURES ON THE VARIETIES OF CONTINUED FEVER AND THEIR DISCRIMINATION.

Delivered at St. Thomas's Hospital, by THOMAS B. PEACOCK, M. D., Assistant Physician to St. Thomas's Hospital, etc.

LECTURE VII—*General Principles of Treatment.*—It was not my intention in these lectures to have spoken of the treatment of the disease, but as the subject would be incomplete without some allusion to this point, I shall very briefly refer to the general principles which should guide us in our practice.

The first question which arises is, *can we arrest or cut short an attack of fever?* This question must be regarded as a purely practical one, to be decided by experimental investigation. We have sufficient proof that those forms of febrile affection which follow the most definite course—the eruptive fever—may be cut short—as variola;—by vaccination, and, in some cases, by vaccination practiced after the receipt of the variolous contagion; and, though the cases are not precisely analogous, there seems no reason why similar results should not ensue from the employment of remedial agents; and in typhus and typhoid, as well as in other forms of fever.

I The means by which the arrest of fever has been attempted have been, 1st, Cold affusion; 2ndly, Remedies acting upon the secretions; and, 3dly, Specific remedies.

1. At the time when Dr. Currie's work had attracted much attention, the plan of employing cold affusion was very much had recourse to in the treatment of all forms of fever—more especially in the early stage—in the hope of arresting the progress of the disease, and there is reason to believe that

the remedy was occasionally, at least, successful. The prostration of strength which it occasioned, was, however, sometimes so serious, that the risk more than counterbalanced the advantage, and the practice was abandoned. Cold bathing is still, I believe, used by the hydropathic practitioners as a means of checking the course of fever, but I know not with what result.

2. Remedies which act upon the secretions have been employed for the arrest of fever, under the idea that as the subsidence of some forms of the disease is attended by so-called critical evacuations, such remedies may be the means of eliminating the poison from the system. Thus, as one of the most common symptoms which attends resolution in some forms of fever is profuse sweating, diaphoretics have been exhibited to promote perspiration, and so to bring about resolution. This is, however, an entirely erroneous view. In many cases the occurrence of sweats during fever, especially when only partial, so far from causing the subsidence of the disease, is followed by serious or even fatal prostration of strength. On the other hand, in cases in which the perspirations are most profuse, as in relapsing fever and sometimes in typhoid, the occurrence of the perspiration, so far from eliminating the poison, does not prevent the occurrence of the future paroxysms in the one case, or cut short the progress of the disease in the other. We can, therefore, only regard the occurrence of perspirations in these cases as indications of the resolution of the fever and not as its cause. Again, we sometimes see febrile attacks subside on the occurrence of spontaneous vomiting or purging; but it by no means follows, that the occurrence of these symptoms is the cause of the subsequent resolution; and even were sweating, vomiting or purging proved to be the means by which nature endeavors to eliminate the poison from the system, it would still not follow that it is sound practice for us to imitate.

Of the remedies of this description upon which the most reliance has been placed as useful in arresting fever, emetics occupy the first place. It is quite possible, that, exhibited quite at the commencement of an attack of fever, before the chain of diseased action has been fully established, they may, by exciting powerful reaction, arrest the further progress of the disease. In the employment, however, of these remedies, great caution should be exercised; the more depressing emetics, such as the tartarized antimony and James's Powder, are of very doubtful usefulness, at least in the low forms of fever which we are called upon to treat in this metropolis. They may excite irritability of stomach, which is often a troublesome symptom, as in

relapsing fever, and which it may be difficult afterwards to check ; or they may cause great depression, if given in cases which are attended with much prostration, as in typhus ; or they may excite diarrhea, if given in typhoid. The objections do not, however, apply to the milder emetics, as ipecacuanha, or, at least, not to the same extent.

In the exhibition of purgatives yet greater caution is needed. In typhoid, diarrhea is often present from the commencement of the disease, and at all times it is very prone to occur—and active purgatives may excite very undue action ; indeed, I have seen them give rise to uncontrollable diarrhea and so occasion death. During the progress of typhoid it is always necessary to exercise the greatest caution in the exhibition of aperients ; and in cases where the bowels have been confined for several days, and where some interference becomes unavoidable, the action of mild aperients will sometimes prove injurious. In taking into consideration the propriety of having recourse to any of these remedies, with the view of cutting short an attack of fever, it must be borne in mind, that, at the commencement of an attack of fever, when only they could be exhibited with the probability of accomplishing that result, it is impossible to know what will be the character of the disease, and, consequently, to decide as to the special applicability of the remedy to be used.

3. Mercurials were much employed in the treatment of fever a few years ago, under the idea that they might destroy the poison existing in the system or assist its elimination ; and also with the view of preventing what was regarded as a complication of the disease,—the inflammation and ulceration of the mucous glands of the intestines. It was even contended, that if the system could be brought under the influence of mercury, the patient always recovered. While however, there is little doubt that in fever the influence of the mercurial remedies is resisted, there is no proof that, where the system is brought under their influence, they produce any beneficial effect ; and practically, their use has been almost abandoned, except for the relief of accidental complications of an inflammatory character.

4. The only remedy which has recently been regarded as possessing any specific power in arresting fever is bark, and especially its alkaloid, quinine. This power has been supposed to be exerted, when quinine is exhibited in large and frequently repeated doses, so as to produce a sedative operation on the nervous system, indicated by well-marked symptoms,—vertigo, headache, tinnitus aurium, and depression of the force and frequency of the heart and arteries. To this condition the term cinchonism has been applied.

During the last autumn, I entered into an investigation of the claims of quinine thus exhibited to its asserted power of arresting fever. I found that the reports of the different Practitioners, who had made trial of the remedy were so varied that they could not be referred to as affording any satisfactory rule of practice. In our own Hospital, I ascertained that of 35 cases of fever of all kinds treated during two years with quinine, in doses of 8 to 10 and 15 grains, repeated three, four, six, eight, and twelve times daily, the mortality was somewhat greater, and the duration of residence in Hospital of the cases which recovered was very nearly the same, as in the other cases of fever treated by the ordinary means. I further found that, in trying the remedy in large and frequently repeated doses, in particular cases of fever of ascertained character—typhus and typhoid—in some, while the physiological effects were fully manifested, no remedial influence was exerted; in others, the use of the remedy added greatly to the prostration of strength, and was obviously injurious; and in one only, out of five cases, did it exert any beneficial influence; and in that it operated only in assisting the favorable progress, not, certainly, in arresting the disease. From these facts I inferred that quinine, thus exhibited, did not possess the asserted power of arresting the progress of fever. An investigation of this kind is one of much difficulty; for it is evident that, if the remedy to be tested be not applied at the commencement of the disease, it is not likely to check the progress of the attack; and, if so applied, as we cannot *à priori* with certainty ascertain the form of disease which is commencing so we cannot decide, if the attack subsides rapidly, whether it has done so in obedience to the natural law of the disease, or as the effect of the remedy employed. We, consequently, are in many instances left in doubt as to whether the remedy has, or has not, proved beneficial. It is only by repeated trial and careful observation that we can arrive at a satisfactory conclusion.

Practically, in the treatment of fever, we may dismiss from our minds the endeavor to arrest the progress of the disease, and must be contented to *aim at conducting the cases to a successful issue.*

II. In this endeavor we should be guided by the principles so philosophically laid down by Dr. Allison. We must remember that the different forms of fever are dependent on poisons, which can operate on the system for a certain length of time only, and consequently, that they will terminate favorably, provided the strength of the patient can be upheld for a sufficient length of time, and the occurrence of local complications be averted.

The modes in which death may occur during fever are by coma, apnoea, and asthenia.

1. The most common mode of death in all forms of fever is *coma*. It is that which we have especially to guard against in typhus, where it is caused partly by the presence of the morbid poison in the blood, and partly by the impure condition of the blood, from the imperfect mode in which all the secretions and excretions are performed. It is also a frequent cause of death in typhoid, and in relapsing fever, from the presence of the elements of the bile or of urea in the blood; and, in all the forms, it may supervene from congestion or inflammation of the brain and its membranes.

2. Death from apnoea is of common occurrence in the acute stages of all the forms of fever, depending either upon diphtheritic inflammation of the fauces, extending into the larynx and trachea; on bronchitis, and especially on capillary bronchitis, or on pneumonia; or lastly, on collapse of the lung, from want of power during the latter stages of the disease. It may also occur from any of these causes, or from pleurisy or pericarditis, during convalescence, and especially is apt to do so in typhoid.

3. Death from asthenia is seen to occur in the simplest form when it results from inanition, in consequence of the inability to get the patient to swallow the full amount of food required, as in typhus, and especially in prolonged cases of typhoid. The food which is taken may also be rejected by vomiting, as in some cases of typhoid, and especially in relapsing fever; or the patient may be exhausted by profuse diarrhea, during the course of typhoid especially, but occasionally in typhus; or he may be worn out by long-continued diarrhea, when the discharge is never very profuse, as in the atonic stage of typhoid. Profuse sweating in relapsing fever, or copious discharges of blood from the nose, much more frequently from the bowels, in typhoid or relapsing fever, may occasion the same result. Death from asthenia may also occur from the supervention of acute peritonitis, dependent on perforation of the bowel, in the active stage, or during convalescence from typhoid; or when extensive sloughing occurs on the back, or occasionally happens, when the extremities become gangrenous in typhus or typhoid. And lastly, the fatal termination may be caused by sudden syncope, from allowing the patient to sit up in bed or leave the bed, during the active stages of any form of fever, or even at too early a period during convalescence.

Our practice, then, in the treatment of all the various forms of fever, must consist in guarding against their various tendencies to terminate in

death; and we must bear in mind, that it is not against one only of these sources of danger that we must be on our guard, but that we consequently have to contend with the several threatening symptoms at the same time, or find them occurring at different periods of the attack.

1. It is essential that *stimulus and support* be exhibited in doses apportioned to the prostration of health, and in the mode best calculated to assure their ready assimilation.

In the early stages of the disease, the patient should only take light and easily digestible food—milk, arrow-root, sago, panada, broth, and soups, or light puddings; with the advancing weakness, the food must be given in a more concentrated form—beef-tea, jelly, chicken-broth, etc.; and at a still later period, or when there is greater prostration of strength, stimulus must be had recourse to; at first, of a milder character, as wine, and subsequently, or when the depression of power is greater, brandy, ammonia, etc., must be given.

It is impossible to lay down any rules as to the quantity of stimulus that may be required. In some cases a few ounces of wine may be sufficient, in others it is impossible to give the support too freely, or in too concentrated a form. I have seen a young lady take, during twenty-four hours, a full bottle of brandy, together with compound tincture of bark and ammonia, etc. And again, I have known a child take a full bottle of wine, with brandy, and other stimulus and support during the same period, and this, too, without producing any symptoms of intoxication, or accomplishing more than the mere maintenance of life. Indeed, in many cases, the hope of recovery rests entirely upon the continued exhibition of stimulus and support, and these must sometimes be constantly given, at intervals of a very few minutes. It is often, in the low stages of typhus or typhoid, and especially in children, very difficult to get the amount of nourishment which is required taken.

The stimulus should be exhibited in conjunction with food, and this should be prepared in the most concentrated form, and be exhibited in the liquid form so as to be readily swallowed and equally readily assimilated. It should be given every hour or half-hour, or even every few minutes, and often it can only be exhibited in tea-spoonfuls at a time; indeed, I have seen life maintained by the more constant wetting of the lips with wine. The diffusible stimulus should, in cases of this kind, be frequently varied, so as not to satiate the patient; sometimes wine, then brandy, or tincture of bark, or the sesquicarbonate or aromatic spirit of ammonia, in decoction

of bark, or with some stimulating infusion, as the serpentary or senega. Generally, stimulus is required at the earliest period, and in the largest quantity, in the treatment of cases of typhus; but it is often necessary to exhibit it most freely in the other forms of fever, and especially in children; and while the prostration of strength is of comparatively short duration in typhus, it is in typhoid often very prolonged, and requires the persistent use of stimulants for many days. It is also very necessary after the exacerbation in relapsing fever. In the employment of alcoholic remedies in fever we must, however, bear in mind that they may occasion the comatose tendency, which it is one of our most important objects to prevent, and we should, therefore, be on our guard against their too liberal exhibition.

2. *Bark and Quinine*.—I have before alluded to the employment of quinine in large doses, with the hope of arresting an attack of fever. When so exhibited, the remedy operates as a sedative; but, in smaller doses, it acts as a tonic, and is often a valuable adjunct to other treatment; but, even when exhibited only in doses of two to four grains, three or four times daily, it is apt to excite headache, restlessness, vertigo, excessive dryness of tongue, and other unpleasant symptoms. Its use therefore requires great caution.

It is often very beneficial in accelerating convalescence when exhibited towards the end of an attack of fever, especially of typhus. It is very useful in cases of typhoid, which, in some localities and in some seasons, have a great tendency to assume a remittent character, having a marked exacerbation each evening, or to relapse. I have also been in the habit of employing it more freely in relapsing fever; but on the usefulness of quinine in this form of fever practical writers are not agreed. Quinine, exhibited in moderate doses, is also very beneficial in a form of typhoid which is not of uncommon occurrence, where the fever, without ever being very intense, is very prolonged, and day after day elapses without any material progress towards convalescence. In these cases the use of the remedy is often productive of very striking effects, and greatly accelerates recovery. I am generally in the habit of employing, during the active stages of fever, the infusion, decoction, or tincture of bark, in preference to quinine, believing these remedies to possess, in a greater degree, the tonic properties of the drug—while the quinine seems rather of use as an antiperiodic, and in strengthening the appetite at the end of an attack of fever.

3. *Remedies which have been supposed to exert a specific influence in checking decomposition* have also been employed in the treatment of fever.

Of these, that most frequently used has been the chlorate of potash ; and it has been much had recourse to since Chomel advocated its use in the typhoid fever of Paris. I have been constantly in the habit of employing the chlorate in all forms of fever in doses of about ten grains dissolved in water, or in decoction of bark, slightly acidulated with hydrochloric acid, in all forms of fever, and with good results ; but using it in combination with other active remedies, it is difficult to say what amount of credit is to be assigned to its asserted powers.

4. *Anodynes* are most useful in the treatment of all the various forms of fever. They may be exhibited to calm agitation and procure rest during various stages. Thus it is not very uncommon, in cases otherwise of mild fever, to find the patient wholly incapable of sleep, and thus the disease is kept up ; in other cases there is active delirium, the patient being constantly talking, and endeavoring to get out of bed ; and, in yet others, there is much tremor, agitation, and nervous excitement. In these cases an anodyne may at once break the chain of diseased action, and dispose the case to advance satisfactorily to convalescence. The exhibition of anodynes in fever requires, however, the greatest care ; they may occasion the coma which should most cautiously be avoided and in some cases, when they do not produce their anodyne effects, they give rise to distressing restlessness, and increase the delirium and excitement which may be present. Generally speaking, they may be exhibited more freely in the early stages of fever than at later periods ; and, in typhoid and relapsing fever, more largely than in typhus. In some cases, where there is reason to suspect inflammation or congestion of the brain or its membranes, their use must be preceded by, or combined with, antiphlogistic treatment, cupping, leeches, ice, or blisters. In others, when there is great prostration of strength, they operate most beneficially when combined with diffusible stimulus, as wine, brandy, ether, or ammonia, or can only be safely employed when so combined.

Opiates are also very useful in checking diarrhea, and they may be more freely applied under such circumstances ; they are especially useful in this way, and also in relieving the abdominal pain, in cases of typhoid ; and, when there is any suspicion of a tendency to perforation, they should be freely exhibited ; when perforation has already occurred, their use in large doses, offers the only possible means of relief. In the early stages of typhoid, and also during convalescence from that disease, it is a good plan, when there is pain in the abdomen and bowels are confined, not to exhibit

an ordinary aperiant; but rather to give a small dose of calomel with a full proportion of opium, and to repeat this in two or three hours, if the pain be not relieved. A small quantity of castor oil may afterwards be given, and the bowels are then generally soon relieved without further inconvenience. I have thus seen attacks threatening perforation of the bowels, readily relieved.

5. *Astringents*.—In cases where there is diarrhea, or discharge of blood from the bowels, astringents must be employed. For the relief of slight diarrhea, the milder vegetable astringents, as kino catechu, may be used in conjunction with the compound chalk mixture. In more severe cases, the gallic, and especially the tannic acid, or the acetate of lead with opium, may be used; and these remedies must also be had recourse to in cases of hemorrhage from the alimentary canal, or other mucous membrane.

When the discharge, whether simple diarrhea or hemorrhagic, takes place from the stomach or bowels, the tannic acid, having stronger local action, is probably the preferable remedy; but in discharges of blood from other organs, the gallic acid, being more readily absorbed, is probably more to be depended upon. I believe, however, in all such cases, that the acetate of lead exercises a much more powerful astringent action than any other remedy.

6. I have already alluded to the employment of *mercurials*, as a means of arresting the progress of fever. These remedies are also exhibited for the relief of the hepatic complications of different forms of fever, more particularly of typhoid and relapsing fevers. When, during the course, or at the commencement, of those diseases, there is more or less jaundice with pain or tenderness in the region of the liver, I have usually had recourse to the employment of the milder mercurials, as the hydrarg. c. creta; and as, in such cases, there is also generally diarrhea, it should usually be combined with astringents and anodynes, as Dover's powder, or the compound chalk powder with opium. This plan I believe to be preferable to the attempt at once to check the diarrhea by the use of the more powerful astringents.

7. *Remedies employed to check vomiting, etc.*—Ice, hydrocyanic acid, effervescent, soda-water, with brandy, etc., must be had recourse to as circumstances require; and they are especially needed in cases of typhoid, more particularly when assuming the remittent form, and in the various stages of relapsing fever.

8. *Counter-irritants* may be employed for the relief of local complications in all forms of fever, but they are especially useful in the comatose affections of typhus or typhoid, and especially, in the latter disease, in children. In such cases the free application of blisters to the neck or to the scalp is of the greatest use. It is not by the discharge that they excite that their application seems to be beneficial, but from their powerfully arousing the patient. I therefore prefer the application of a succession of blisters, to the continuance of the discharge from the same surface. As a general remark, the liq. vesicatorius produces this effect much more decidedly than an ordinary blister, and I have certainly seen the lives of children saved, under the most unfavorable circumstances, by the free application of the blistering liquid to the scalp; nor did I ever know any unpleasant effects result from the practice. Sinapisms applied to the calves of the legs or feet, or hot mustard and salt baths may also be used in cases of cerebral complication, or as the means of arousing the patient when greatly prostrated. The continued use of warm poultices, or turpentine and other fomentations, is of the greatest use in cases of severe abdominal disturbance.

9. *Antiphlogistics* may be employed for the relief of the inflammatory complication of the different forms of fever; but, in modern practice, blood-letting is only practised locally by cupping or leeching. Either of these means may be employed for the relief of symptoms dependent on inflammation of the brain or its membranes; or the patient may be cupped on the chest or between the shoulder-blades in cases of pneumonia or bronchitis; or leeches may be applied on the abdomen, and especially in the right iliac region, in cases of typhoid, where there is pain, and other symptoms of unusually active abdominal inflammation; or on the right hypochondrium in cases of inflammation or active engorgement of the liver, especially in relapsing fever; but in all forms depletion is only applicable in the early stage, and requires the greatest caution. Antimony judiciously exhibited, and in combination with other means, is occasionally useful in the bronchitic or pneumonic complications of the different forms of fever.

10. Lastly, the greatest attention should be paid to the *hygienic management of the patient*. His hair should be cut short or shaved at the commencement of the treatment, according to the urgency of the cerebral symptoms. He should be kept clean; and free ablution of the hands and face, and of the body generally should be frequently practised. Though, indeed, cold affusion has been abandoned in the treatment of fever, ablution is still most usefully employed. Sometimes the patients prefer to be spong-

ed with cold water, at other times with tepid or warm water; and in the latter stages the employment of warm vinegar and water is often very beneficial. Ablution of the whole surface can rarely be borne at the later periods; but the head, face, hands, and feet may usually be sponged, several times in the day, with the greatest advantage, and often patients obtain great relief in the early stages from keeping their hands in cold or tepid water. The bed and body linen should be frequently changed; and the room should have a free perfiation of air through it, care being taken not to allow the air entering to be too cool or damp, or the patient to be exposed to a direct draught. In making the requisite changes the patient should be disturbed as little as possible; and he should, on no account, be allowed to rise from the bed during the active period of the disease, to make use of the close stool, or for other purpose, or leave his bed at too early a period during convalescence. I have known neglect of these precautions attended with fatal effects, in cases otherwise progressing favorably.

During convalescence also the regulation of the diet is of the greatest importance and especially in typhoid, in which a long period may elapse before the mucous membrane of the bowels recovers its healthy condition. The food should be light, simple, and easy of digestion; and should be taken in small quantities at a time and at frequent intervals. As the appetite returns, the stimulus should be diminished, and replaced by more nutritious food, the liquid should be gradually changed for the solid form, and the intervals allowed to elapse between the meals should be longer. The friends of the patient are apt to transgress in these respects, giving food in too large quantities, too frequently, and of too stimulating a character. This should be carefully avoided. So far from convalescence being accelerated by such a course, it is apt to be protracted; and in typhoid, especially, serious or permanent evil may result. When during convalescence, the exhibition of stimulus materially quickens the pulse or gives rise to flushing, heat, or dryness of the skin, it cannot be beneficial, and should only be given in smaller quantities, or be entirely abstained from.

ON THE EFFECT OF CHLOROFORM UPON THE RESULT OF SURGICAL OPERATIONS

By JAMES ARNOTT, M. D.

The announcement of "death from chloroform," does not now affect the profesional reader in the manner it originally did. He regrets the in-

dividual occurrence, but he finds consolation in the reflection that such casualties are rare, and that they are much overbalanced by the favorable influence exerted by chloroform on the results of operations. Though a few may die, he says, from the immediate or direct effects of chloroform, many are saved by its ulterior agency.

He judges of the first circumstance—the number of sudden deaths—by the small number of reports which reach him; of the second, by the statistical investigations that have been instituted to determine the question.

On the first point, however, he is very apt to be deceived. Scarcely a hundred instances of sudden death from chloroform have as yet been reported, but there cannot be a doubt that by far the greater number have been concealed.

In some remarks on this subject, two years ago, it was stated that, although five cases of sudden death from chloroform had taken place in the London Hospitals within the seven months preceding my publication, not one had been reported as occurring in the private practice of London during that period; and the same observation, it was stated, was applicable to a much longer time. Indeed, I am not aware that more than two cases of sudden death from etherization have been published as happening in the private practice of London since its introduction. This evident concealment is neither extraordinary nor reprehensible. What family is there that would not endeavor to the utmost to avoid the horrors of a coroner's inquest, and the consequent newspaper report, where as happens in the case of death from chloroform, there can be no suspicion of foul play? Nor can we blame the practitioner who would gladly escape from a criticism of his proceedings on such occasions. Useful as such modes of publicity may be on other accounts, they do not, in this instance, promote the advancement of medical knowledge. But many die from the direct effects of chloroform and within a few hours of its administration, whose deaths are attributed to other causes. Dr. Mouat has recently drawn attention to such cases. He speaks of soldiers who were operated upon in the Crimea under chloroform, as gradually sinking under the peculiar state of nausea and depression which follows its use. "Reaction is never thoroughly established, the desire for food never returns, and the patient sinks as it were stealthily, and dies from exhaustion in from twelve to twenty-four hours." "These cases," he adds, "are far more numerous than is generally suppos-

ed, and many of them may fairly be termed 'deaths from chloroform,' but are never so returned (a)."

The second source of consolation on such occasions, we have said, is the opinion that the sudden deaths from chloroform are much overbalanced by saving property as respects the results of operations. It has been asserted, in reference to certain amputations, that if five cases were to be killed by the direct agency of chloroform in every hundred operated upon, there would still be a saving of life by its ulterior agency. This is a most important point, about which there should be no doubt. If the position that there is a saving of life upon the whole be incontestable, it ought, for the credit of the profession, to be brought more frequently forward especially on such occasions as the recent inquest at St. Thomas's Hospital: if it be unfounded, the sooner it is contradicted the better. It is the purpose of this paper to renew the investigation of the subject.

The question whether chloroform saves life as well as prevents pain, can only be determined by statistics. To attempt to form a judgment from individual experience, would be scarcely less erroneous than to estimate the comparative proportion of the two sexes (now ascertained with such wonderful accuracy by the aid of statistics) by counting the males and females in the inquirer's own family. Nor would reasoning from the observation of the sensible effects on the system bring us nearer the truth. The absence of pain may be, and probably is, an advantage as respects the result of an operation, but it may be much over-balanced by the other effects of the anæsthetic; and the beneficial stimulus excited by chloroform may be followed by injurious prostration (b). On the other hand, poisonous and depressing as the drug manifestly is in some cases, it may still possess some hidden virtues conducing to recovery. Whatever its ulterior agency may be, as this produces no peculiar symptoms, it is by results alone that its nature can be determined.

The writer, whose inquiries on this subject have been most influential, is Dr. Simpson of Edinburgh.

About two years after the introduction of etherization, and when Sur-

(a) *Medical Times and Gazette*, September, 1856.

(b) The credit of a double advantage claimed for general anæsthesia, of preventing both pain and danger, is justly due to local anæsthesia from cold, and when used for other purposes as well as operations. Mr. Langston Parker, in his recent work on Cancer, speaks of our now being able to use caustic in its cure in consequence of the pain from it being removed by frigorific applications; but the prevention of erysipelas by intense cold is not of less importance, to say nothing of its own direct and efficacious curative agency in malignant diseases.

geons were beginning to fear that the bad effects of chloroform might not be limited to the very time of its administration, but might seriously affect the results of operations, Dr. Simpson's statistical investigations respecting this point were published. They were prefaced by an ably written and lucid exposition of the value of statistics applied to this inquiry, which, with the manifest trouble he had had in collecting his materials, and the apparent care he had taken in arranging them, insured a ready and confiding reception to his investigations by the Profession. From that time all anxiety about the ulterior effects of chloroform seemed to cease, and Surgeons have continued to employ it without hesitation, under the conviction that, instead of there being a destruction of life as the price paid for the insensibility, a great saving of life is effected by it. The tables in which he condensed the results of his investigations, and which have just been reprinted in his collected works, have been as influential with Surgeons as the Northampton Life Tables have been with Assurance Companies.

As these tables represent the mortality from amputations to have been 29 per cent. immediately before the introduction of etherization, and 23 per cent. after its introduction, and as the inference from them is that there has been a saving of life effected by the change to the amount of 6 per cent. (a number doubtless far exceeding that of the sudden deaths which have taken place during the administration of chloroform). It is no wonder, then, that they should have been so often appealed to in discussions upon this subject, and that all theoretical objections to chloroform should have been refuted by them.

Nevertheless, these tables, when closely examined, are found to involve the greatest fallacies; they do not afford a particle of evidence that the introduction of chloroform has lessened the mortality after amputation.

The first, which professes to give the average mortality of thirty British Hospitals, should have shown the number of operations, and their results, at each of these Hospitals during precisely the same period of time; but, instead of this, while the period of observation, as respects the only large healthy hospital inserted in the list, is limited to two years, that of the large unhealthy hospitals of Edinburgh and Glasgow, the excessive mortality of which almost equals that of the Paris hospitals, extends to more than three times this duration. If an equal period of observation be taken to form this average, (excluding two of the small hospitals, one healthy and the other unhealthy, on account of the period of observation respecting them being uncertain), the table, instead of showing a mortality of 29 per

cent., would show one of only 24; and, if other large healthy hospitals, like that at Bristol, had been included—such as the Liverpool Royal Infirmary, where (as appears from a published return) the deaths from amputation during three consecutive years were only at the rate of 6 per cent.—the average mortality of the whole would probably have been considerably less than 20 per cent.

The second table involves no miscalculation so palpable as that in the first, but it leads to conclusions equally erroneous. It gives an account of the number of amputations in which ether was administered, with the results; but what the character of the cases was in which it was used—whether the patients were healthy or worn out with disease—we have no means of judging. In all probability the best cases were generally selected, for only a few were returned from each hospital; and it was natural and proper that at first the best cases should be chosen for trial; not only those free from serious organic diseases of the vital parts (a class which were long excluded,) but those in which the reparative powers were most conspicuous; and a clearer proof that this was the case cannot be adduced than the fact that the etherized cases from the eight London hospitals inserted in this list, show a mortality of more than 10 per cent. below that which (as we shall presently see) exists at the present day.

But as the prospect of recovery from amputation is good or bad according to the general health of the patient, and other circumstances, if we could always select our cases, the usual mortality would probably be reduced to less than a half.* As it is, all the advantage which the 302 etherized cases appear by the table to have over the non-etherized 618 of the other table (admitting the returns to be correct), does not amount to more than 1 per cent. To prove that there was not actually a loss of life, instead of a gain, from etherization, there should have been, assuming that the cases were generally selected, a much greater difference than this. A per centage of 23 deaths from amputation in the English provincial hospitals, even supposing that every case was etherized, would indicate a great increase of the usual rate of mortality before the introduction of etherization.

Another objection to the reception of this table as an argument in favor of the indiscriminate use of chloroform, is, that it has reference principally to sulphuric ether as the means of producing anaesthesia, for very few operations had been performed under chloroform at the time of its publication. Now, chloroform, whatever other advantages it may possess over ether, has

none as regards safety ; and what is of more importance in respect to this table, it has of late years been employed much more boldly than was formerly usual. Patients were then frequently only half intoxicated by the anæsthetic, and the intoxication was kept up but for a short time. A change in this practice had not yet been effected by the singular argument, that, because a patient laboring under convulsions may be kept for a long time under the full influence of chloroform apparently without injury, the same proceeding can be adopted with impunity in the case of a patient exposed to the long-continued danger of a large amputation wound.

We shall now proceed to the consideration of tables of a very different character from the above, as respects their construction, and which disclose facts of a very different import.

Although I had long felt convinced, from reflecting on the evidently poisonous character of chloroform, that the number of sudden deaths produced by it, whether reported or not reported, was by no means the measure of the whole mortality, I was unable to obtain satisfactory evidence of this. It was by statistics alone that this point could be determined, and I had no easy access to the repertories of the necessary facts preserved in hospitals. At last my attention was directed to the Statistical Reports of Operations which have appeared for several years past in the *Medical Times and Gazette*, by a reference to them in Sir Benjamin Brodie's recently-published paper on Lithotrity. On examination, I found that these reports were all I could have desired. A monthly account is giving of the whole operations during the last three years. Their accuracy is assured by the circumstantiality with which every case is mentioned, and by the fact, that they were not drawn up with a view to the settlement of any particular question in practice. The reporters of these statistics have been under no conceivable bias ; they have been actuated solely by a desire to promote surgical science. If their returns have a fault, it is certainly not the overstatement of the mortality ; for, almost every month, a large number of cases are mentioned as being still under treatment ; and although the fatal issue of a few of these is afterwards reported, it is probable that other deaths have happened in consequence of the operation, but at too long a period after it to be known to the reporter or to be recorded by him. It might at first sight appear desirable to have reports for a longer period than three years, but were the period now extended, any such comparison as that we are now making between the results of operations, becomes imperfect or impossible by the advancing improvements altering the circumstances.

In the *Medical Times and Gazette* there are separate statistical reports, both of the London and Provincial Hospitals; but I shall restrict my attention to the first, for the following reasons. The principal is that the Hospitals in the provinces are too far apart, and differ from each other in too many circumstances, such as climate, site, and character of the patients frequenting them, to render it possible to form an estimate of their average mortality before etherization was introduced, from the very few published returns of the results of amputations in the Provincial Hospitals at that time. Another reason is that I am not sure that the administration of chloroform has been so universal in operations in the country as it has been for many years past in the metropolis. In London, on the other hand, there are many large Hospitals furnishing the requisite number of facts, and they are all under nearly the same kind of general management, surgical practice, etc. We have authentic returns also of the mortality after amputations in some of the large London Hospitals before ether was introduced, from which, in consequence of the similarity of circumstances just alluded to, we can construct a sufficiently correct estimate of the general mortality for comparison with the present rate. The following table has been constructed from these returns.

TABLE I.

Showing the Average Mortality after Amputations of the Thigh, Leg and Arm, in four London Hospitals, before the Introduction of Chloroform.

Hospitals.	Date of Observation.	Reporter.	Primary Amputations.		Secondary Amputations.		Total.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
University College	1835—40	Mr. Potter.	8	3	50	7	58	10
St. Thomas's.....	1842—47	Mr. South.	20	7	29	6	49	13
University College.....	1841—46	Mr. Cadge.	7	4	38	10	45	14
Bartholomew's.....	1846	Mr. Haig.	8	1	14	3	22	4
							174	41

Percentage of deaths to cases (taking equal periods of observation), 21.9.

The great diversity which appears in the above table between the two equal periods of observation at University College Hospital, is a striking illustration of what has been termed a run of good or bad luck in the practice of the same surgeon, for Mr. Liston was the principal operator at the

hospital during both periods; and it shows also, how unsafe it would be, unless for a very long period, to rely on any particular hospital as a standard. The return of deaths from amputations at St. Thomas's is heavy, and I might have been justified in rejecting it as being of too private a nature to have the requisite authority; but in order to prevent any cavil, or appearance of selection, it is retained; and, for the same reason, I have omitted the only other return of amputations which I have been able to find as respects the London hospitals: objection may be made to it, because the mortality is much below the usual average. This return is from Guy's Hospital, and is mentioned by Dr. Fenwick in his elaborate paper on the statistics of amputation, in the *Edinburgh Journal of Medical Science* for 1847. The period of observation is from 1843 to 1845; the cases are 36, and the deaths 4, or at the rate of 11 per cent. Were this return added to the others in the table, it would reduce the average of the London mortality to less than 20 per cent., or one fatal result in 5 amputations.

The present mortality of the London hospitals is shown by the following tables, into which the several returns in the *Medical Times and Gazette* have been condensed.

TABLE II.

Showing the Mortality from Amputation of the Thigh, Leg and Arm, performed under Chloroform in the London Hospitals during Eighteen Months, from June, 1855, to June, 1856, inclusive.

Hospitals.	Primary Amputation.		Secondary Amputations.		Total.	
	cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
St. Bartholomew's.....	1	...	23	7	24	7
St. Thomas's.....	4	3	12	3	16	6
Guy's.....	15	10	34	3	49	13
London.....	11	2	13	4	24	6
St. George's.....	6	3	15	5	21	8
University College.....	3	2	14	3	17	5
King's College.....	1	1	8	3	9	4
Middlesex.....	1	1	5	2	6	3
St. Mary's.....	5	3	12	3	17	6
Westminster.....	...	...	2	...	2	...
Charing-cross.....	1	1	9	2	10	3
Metropolitan Free.....	...	...	2	...	2	...
Hospital for Sick Children.....	...	...	1	...	1	...
Seamen's.....	...	...	5	...	5	...
Marylebone Infirmary.....	...	...	1	...	1	...
Total.....	48	26	156	35	204	61

TABLE III.

Showing the Mortality from Amputation of the Thigh, Leg and Arm, performed under Chloroform in the London Hospitals, during Three Years, from July, 1853, to June, 1856.

	Number of Cases.	Number of Deaths
First Year	144	57
Second Year	150	50
Third Year	136	41
Total	430	148

Average percentage of deaths, 34.4 (a)

It appears, by comparing these with the foregoing table, that the mortality in the London hospitals has increased since the introduction of etherization from 21 to 34 per cent., or, to vary the expression, instead of amputation being fatal in a less proportion than one in four of those operated upon, it now proves fatal in one in three. Is not so enormous a sacrifice of life too high a price to be paid for anæsthesia, even granting that this cannot be otherwise obtained with perfect safety? Is life to be held as nothing when compared with pain?

EDITORIAL AND MISCELLANEOUS.

MEDICAL SCHOOLS, No. 1.

From our exchanges we perceive that the medical schools of our country are all well patronized this winter. True, there appears to be something of a change in the direction of the current of our Southern young men—a far greater number of them than usual having extended their patronage to home institutions; but this is the natural result of the efforts of Southern teachers to make the institutions over which they preside in every respect

(a) Several sudden deaths were reported as happening from chloroform in the London Hospitals during this period, but none from its administration in amputations, though, in the account of cases in the journal, the fatal terminations are occasionally spoken of in such terms as these: "vomiting continued until death," "death from collapse followed," "sank from shock during the performance of a primary amputation," "sank almost immediately after artificial respiration and galvanism had been resorted to without success."

as attractive as any to be found abroad ; and although our Northern friends may wince a little under the first disagreeable impression made on their purses, still they are Republican enough to know that monopolies in a free country cannot long exist ; and, while they reluctantly part with Southern patronage, they will accord us all honor for having legitimately deprived them of the prize.

The short but brilliant history of the Medical College at Nashville, Tenn., gives indisputable evidence of the tendency, of late evinced, to cultivate Southern medicine and to patronize the energy and industry of those who are ambitious to rival the most distant and distinguished of medical teachers. The extraordinary success of this institution alone—whose large classes are, of course, Southern—tells plainly of the turning of the tide, and in a few years more that which is now the rule with Southern students of medicine will become the exception. Why shall we not prophecy ? We have done so once and hit the mark, and we have ample confidence to try it again. Not eight months ago, when the organization of a new medical college in this city was being agitated, we confidently predicted, as the result of such a step, the presence of *three hundred* matriculants here this winter—a number far above anything ever heard of here, and only dreamed of as possible by some poor wight, who, in times past, was crazy enough to think of, but not quite crazy enough to utter, the words *new school*. When the catalogues of the medical colleges here are issued, our readers will see that our prophecy was not extravagant.

Medical teaching, like medical practice, cannot be hereditary in a Republican country. When the teacher or the doctor dies, his mantle falls not where he would direct or desire, but on the shoulders of him whose mental and physical freedom have made him most worthy, and, therefore, the legitimate heir. Exceptions to this rule exist, but they are every day becoming fewer, and only the more strongly tend to prove it. Seven years ago, Tyler Smith, in alluding to those obstetricians, so-called, who have really been, in point of practice, the heirs of William Hunter and Denman, said—"They have acted as though midwifery had arrived at something like perfection, as though all that remained to be done was to cultivate a lucrative practice ; and I venture to predict that the hereditary line will be broken by others possessing a better conception of the spirit, and more able to wear the mantles of these eminent accoucheurs."

So that in the very land from which we are wont to import so many ideas on important scientific subjects, we find one of the best and boldest

thinkers of the day waging war on, and predicting the downfall of, such hereditary monopolies. This is the inevitable result of freedom of thought and speech. On this score we are something of an old line Quaker. We cannot see the justice or the propriety of the congregation being always bored by the same preacher, to the exclusion of all the thoughts originating in all the other brains besides. If the spirit moves the man, let him speak, so that his discourse be legitimate, and it is his own business whether or not he commands an audience.

We are no sectionalist. On the contrary, we derived our medical education entirely at the North—and quite ample were the means afforded us for acquiring it; yet we are neither blind to, nor ashamed to confess the error we committed in thus entirely eschewing the inducements that were offered at home. We could not appreciate then the truism, that as surely as there is a distinction between foreign and American medicine, so surely is there a distinction between Northern and Southern medicine. Self-interest, or wounded pride, may prompt the charge against us of sectionalism; but to this we have no answer, as it deserves none. To the dissenter we would say—look to your map, and note the distance that lies between us; reckon your latitude and longitude, and then reckon ours; study your diseases, and then come and study ours; give medicines North, and then come and give them South; and candor will force you to admit that nature alone is the sectionalist, and we are but her humble interpreter.

"Oh! but there are too many medical schools," says the croaker. "Diplomas are at a discount," says his friend Echo. "The business is cut up, and no longer pays," says Self-interest. As for the croaker, he would croak if there were but two medical schools in the land. Of course there would be one too many. Echo never has any opinions of his own; and Self-interest's ideas of the standard of medical education have, of course, to originate in his pocket, instead of his brain, and consequently they meet with no consideration at the hands of the real friends of medicine. The fact is, we are the warm advocates of the most extensive system of cultivation, whether of science or soil; and it is the laborer's look-out that he does not forget that he who digs deepest, and keeps the weeds down, is surest of a good harvest. It is the quality, and not the number of medical schools that merits our consideration. Number only means competition, and this is the great motive power which, when properly applied to society, drives it on to excellence. Northern medical schools used to be very good, but they are far better for having to compete

with Southern institutions, which offer inducements to the student equal to any in the land. And so must competition at home exert the same wholesome influence. The fact is, this is the age in which men work, and work a man must, whether he be a teacher of medicine or a street scavenger (always barring that we mean to accuse *our* street scavengers of working). But we have overstepped our limits in the present number, and must make our readers wait for "Medical Schools, No. 2." Aye, who knows but we may write No. 20 before we have exhausted the fruitful theme.

TO OUR PATRONS.—We wish all our friends and patrons a happy new year; and if they will permit us to inform them how they can make *us* happy, we will do so in the best measure we can borrow, apologizing for our want of originality in this respect.

"Should you ask us why this dunning,
Why these sad complaints and murmurs,
Murmurs loud about delinquents,
Who have read the Journal monthly,
Read what they have never paid for,
Read with pleasure and with profit,
Read of news both home and foreign,
Read of essays and of abstracts,
Full of wisdom and instruction;
Should you ask us why this dunning,
We should answer, we should tell you,

From the printer, from the mailer,
From the prompt old paper maker,
From the landlord, from the carrier,
From the man who taxes letters
With a *stamp* from Uncle Samuel—
Uncle Sam the rowdies call him—
From them all there comes a message,
Message kind, but firmly spoken,
'Please to pay us what you owe us.'

Sad it is to hear such message,
When our funds are all exhausted,
When the last bank note has left us,
When the gold coin all has vanished,

Gone to pay the paper maker,
Gone to pay the toiling printer,
Gone to pay the landlord tribute,
Gone to pay the active carrier,
Gone to pay the faithful mailer,
Gone to pay old Uncle Samuel—
Uncle Sam the rowdies call him—
Sad it is to turn our ledger,
Turn the leaves of this old ledger,
Turn and see what sums are due us,
Due for volumes long since ended,
Due for years of pleasant reading,
Due for years of toilsome labor,
Due despite our patient waiting,
Due despite our constant dunning,
Due in sums from five to twenty.

Would you lift a burden from us?
Would you drive a spectre from you?
Would you taste a pleasant slumber?
Would you have a quiet conscience?
Would you read a paper *paid for*?
Send us money, send us money,
Send us money, send us money,
SEND THE MONEY THAT YOU OWE US!"

Altered from Meth. Protest.

CHLOROFORM.—At a meeting of the Crimean Medical and Surgical Society, in May last, Dr. McLeod read a paper on the general use of Chloroform. He advocates its use most strenuously, and said that notwithstanding it had been used most extensively during the late war, only one death had occurred by it, and in that instance the patient had not been placed in the recumbent position.

Drs. Blenkins, Gall, Bowen, and others, concurred as to the use of the remedy. Dr. Bowen had administered it to between 2,000 and 3,000 individuals, and had given it to one woman during 14 hours. Dr. Howard considered it invaluable in delirium tremens, as it procures sleep when all other remedies fail.

OVARIOTOMY.—Our Northern and Western brethren are leading the world in this great operation. The editors of the *Western Lancet*, for December, 1856, say they have seen an ovarian tumor, weighing 100 lbs., removed on the 18th November, by Dr. Dunlap, of Ripley, Ohio. Patient doing well two days after the operation. In the December number of the *Buffalo Medical Journal*, Dr. Nelson Winton, of Havana, N. Y., reports a case of successful removal of a similar tumor, weighing 10 lbs.—operation performed Sept. 21st, 1856.

CHANGE IN MEDICAL JOURNAL.—The *Medical Examiner* has ceased to exist. We perceive that Drs. Gross and Richardson have combined this old journal with their *Louisville Review*, and the result of the union is to be the "*North American Medico-Chirurgical Review*." We only hope the child will prove in every respect worthy of its parents.

PROLIFIC.—We clip the following from a newspaper: "Mrs. Timothy Daley, of Pittsburg, Pa., has just given birth to three children weighing 24½ pounds, making four children within eighteen months. We trust that Mr. Timothy Daley is a gentleman with a liberal income!"

TRANSMISSION OF SYPHILIS FROM THE FÆTUS TO ITS MOTHER.—Mr. Hutchinson, Surgeon to the Metropolitan Free Hospital, arrives at the following principal conclusions in relation to this interesting subject:

1. That women pregnant by fathers suffering from constitutional taint, are very liable to receive the disease from the fœtus.
2. That, when this occurs, the form of disease manifested by the mother will resemble closely that of the father.
3. That syphilitic cachexia, and symptoms of the late tertiary class (palmar psoriasis, fissures of the tongue, leucorrhea, serpiginous cicatrizing ulcers, and nodes), are the most frequent manifestations of taint thus derived.
4. That the reason why, under these circumstances, severe outbreaks of

symptoms of the secondary class so very rarely occur is, that the father has, in almost all cases, long passed that stage, and possesses only a taint of the blood, or late tertiary manifestations.

5. That the disease thus derived is not zymotic, *i. e.* that its severity will depend directly on the amount of the contagious material received, and on the constitutional vigor of the recipient, and that increase of symptoms and relapses may be produced by repetition of exposure to contagion.

6. That proneness to abort is not nearly so frequently observed in this class of cases as in that in which the mothers have themselves had primary syphilis.

7. That contamination by pregnancy offers a satisfactory explanation of most of the cases of so-called contagion of secondary syphilis.

8. That it is extremely doubtful if "contagion by the seminal fluid" be possible, cases being extremely rare in which married women who have never conceived become the subjects of constitutional taint, without having had primary symptoms, and are in all probability to be explained as errors of observation. (The author had met with but one case of this class).

CEPHALALGIA, FACIAL NEURALGIA, ETC.—We clip the following prescription from the *Medical Times and Gazette*. If our readers have had as much trouble in treating neuralgias as we have had, they will be sure to give it a trial.

Quin Sulph., dissolved in spirits of wine.....	grs. xij.
Ferri Oxyd.....	grs. xij.
Succ. Liquirit.....	9. 8.

In pil. 24, taking one or two every hour.—*Berlin Zeitung*, No. 13.

TREATMENT OF MENORRHAGIA.—Dr. T. A. Mitchell, of Ohio, sends the following prescription for menorrhagia to the *Cincinnati Medical Observer*.

Official preparations of—

R. Tinct. Gum Kino.....	3ij.
“ Cort. Cinnam.....	3i.
Pulv. Cupr. Sulph.	3i.

M. et. ft. solut. S. 10 drops, three times daily, and increase or diminish according to urgency of symptoms.

A COMPLIMENT.—The London *Lancet*, for December, says : “The sum of £250 has been voted by the Town Council of Edinburg, out of their ‘Special purposes fund,’ as an offering to Dr. Alison, on his retirement from the chair of medicine in the University.”

NEW ORLEANS SCHOOL OF MEDICINE.—The success of this institution, so far as early patronage goes, is placed beyond all doubt on the part of its friends; and if the institution has any enemies (which we flatter ourselves it should not have), they had better not waste their labor in attempting to stay its progress. The matriculation book of the institution shows now a list of 67—and more are coming. What new Medical School has ever made a more flattering beginning? If energy, industry, and a firm determination to excel, will cause the class of another year to be twice or three times sixty-seven, then are the Faculty sure of their presence.

BOOKS AND PAMPHLETS RECEIVED.

“HANDBOOK OF INORGANIC CHEMISTRY; FOR THE USE OF STUDENTS
By WILLIAM GREGORY, M. D., F. R. S. E., *Professor of Chemistry in the University of Edinburgh, etc.* Fourth American, from the third English edition. To which is added *The Physics of Chemistry*—By J. MILTON SANDERS, M. D., L. L. D., *etc.* New York: A. S. Barnes & Co., 1857.”

A book of much intrinsic merit, so far as the English author's contributions go; but which will command comparatively little attention, for the reason that it is edited by a Professor in the Eclectic Medical Institute of Cincinnati.

“REPORT ON THE EPIDEMICS OF LOUISIANA, MISSISSIPPI AND TEXAS, for the years 1854 and 1855, to the American Medical Association, at the Annual Meeting in Detroit, Michigan, May, 1856—By E. D. FENNER, M. D., of New Orleans. *Extracted from the Transactions of the American Medical Association.* T. K. & P. G. Collins, Printers, 1856.”

To the author we are indebted for a copy of the very able and elaborate report. We have not yet been able to give it a careful perusal, but a glance satisfies us that it is eminently worthy of constituting a part and parcel of the late volume of transactions from which it is extracted.

“LECTURE *introductory to the Course of Institutes and Practice of Medicine in the Medical College of South Carolina*—By SAMUEL HENRY DICKSON, M. D., L. L. D.. Charleston: Nov. 3d, 1856.” From the author.

“TREATMENT OF IRITIS WITHOUT MERCURY—By HENRY WILLIAMS M. D., *etc.* Read before the Boston Society for Medical Observation. Reprint. Boston: 1856.” From the author.

‘THE THERAPUTICAL POWERS AND PROPERTIES OF VERATRUM VIRIDE—By WESLEY NORWOOD, M. D., Cokesbury, S. C. Second edition. New York: J. D. Bedford & Co., Printers.’

REPORT OF DEATHS IN THE CITY OF NEW ORLEANS, for the four weeks ending December 21st, 1856 :—

Men, 124; Women, 58; Boys, 95; Girls, 87—Adults, 182; Children, 182—Males, 216; Females, 146—Colored persons, 75 :—Total, 362.

Diseases—Apoplexy, 11; Asphyxia, 2; Asthma, 1; Bronchitis, 1; Burned, 2; Cancer, 1; Catarrh, 2; Casualties, 6; Cholera, 4; Do. Infantum, 1; Concussion of Brain, 1; Congestion of Brain, 4; Do. of Lungs, 6; Consumption, 45; Convulsions—Adult, 2—Do., Infantile, 26; Cramps, 2; Croup, 8; Debility—Infantile, 5; Delirium Tremens, 2; Diarrhea, 20; Dropsy, 5; Drowned, 6; Dysentery, 16; Enteritis, 12; Enterocolitis, 2; Erysipelas, 1; Exposure and want, 1; Fever, 1; Do. Congestive, 4; Do. Hectic, 2; Do. Puerperal, 2; Do. Remittent, 1; Do. Typhoid, 7; Do. Typhus, 1; Do. Yellow, 2; Gastro-enteritis, 7; Hemorrhage, Uterine, 1; Heart, Dis. of, 4; Hydrocephalus, 2; Inflammation of Bladder, 1; Do. of Brain, 4; Do. of Liver, 3; Do. of Lungs, 6; Do. of Stomach, 1; Infanticide 1; Insanity, 1; Jaundice, 1; Kidneys, Dis. of, 1; Killed or Murdered, 5; Marasmus—Adult, 1; Do. Infantile, 18; Measles, 1; Meningitis, 2; Old Age, 9; Parturition, Difficult, 2; Pleurisy, 3; Scrofula, 1; Softening of Brain, 3; Spine, Dis. of, 1; Stillborn, 19; Suffocation, 1; Suicide, 3; Teething, 10; Tetanus, 7; Trismus Nascentium, 16; Ulceration of Stomach, 2; Unknown 1; White Swelling; Not stated, 7; total, 362.

Diseases Classed.—Not complete.

Ages—Under 1 year, 108; 1 to 2 years, 32; 2 to 5 years, 24; 5 to 10 years, 14; 10 to 15 years, 4; 15 to 20 years, 6; 20 to 25 years, 25; 25 to 30 years, 39; 30 to 40 years, 42; 40 to 50 years, 31; 50 to 60 years, 21; 60 to 70 years, 5; 70 to 80 years, 8; 80 to 90 years, 4; 90 to 100 years, 1; 100 years and upwards, 1.—Total, 362.

Nativities—Africa, 1; England, 3; France, 9; Germany, 24; Ireland, 47; Italy, 3; Mexico, 1; Portugal, 1; Scotland, 2; Switzerland, 3; United States, 132; Unknown, 26; West Indies, 2; Not stated, 103.—Total, 362.

EXCERPTA.

ASTHMA.—Prof. Forget, of Strasbourg, in a memoir on Nervous Affections, and particularly Asthma, arrives at the following conclusions :

1. Asthma is a special nervous affection, having a distinct existence like the other neuroses, even when it is developed consecutively to other affections, such as catarrh and emphysema.

2. Cases of primitive asthma, essential as they are termed, are, if not doubtful, sufficiently rare.

3. Almost always as soon as asthma is developed, it is connected with catarrh, sometimes with emphysema, and often with both, without these three affections necessarily being conjoined or resulting from the same cause.

4. In the great majority of cases catarrh and sometimes emphysema, and often both, precede for a long time the development of asthma so as to render it indubitable that the latter is consecutive.

5. Asthma is much rarer than catarrh and emphysema, which would not be true if these three affections were correlative.

6. Asthma, when once developed, may manifest itself rarely, at long intervals, or may disappear entirely, catarrh and emphysema persisting, a fact proving the specialty of asthma, but not its entire independence of the other affections.

7. The peculiar relations which asthma sustains to catarrh and emphysema may sometimes be explained by an analysis of clinical facts, and especially by the greater or less extent of the bronchitis.

8. The intermittency of asthma, the organic lesions being persistent, the most striking of its peculiarities, does not pertain exclusively to this affection, but also to all the neuroses.

9. The therapeutical deductions from these premises are, that asthma is not to be combatted always by the same measures ; that the application of specifics is often irrational and illusory ; that each of the constituent affections in particular cases, claims its share of curative means according to its predominance or its influence on the other affections, and that in controlling certain united affections we may often succeed in destroying the nervous affection.

10. In conclusion, by a kind of Providential provision, there is a remedy suited to each of these affections. This remedy is opium, which is equally appropriate to the catarrh, emphysema and the nervous affection.—*Gazette Hebdomadaire*, from *Annuaire des Sciences Medicales*.—Translated for the *Buffalo Medical Journal*.

THE BOARDING SCHOOL NUISANCE.—While our Sanitary Police is engaged in inspecting emigrant boarding houses, the tenant houses of the poor, and in ferreting out the causes of disease in alleys and unventilated courts of cities, equally fruitful sources of ill-health exist among our higher classes, producing evils as serious and as lasting.

A few weeks ago we were called to see a young girl suffering from general debility, neuralgic pains, vertigo and headache. She had just returned from a boarding school in a neighboring city, where she had spent only a month before her health, previously good, failed. On inquiry we found the routine of the school to be as follows, and to be certain of the correctness of her account we have made inquiries of others familiar with its management.

The pupils rise at five in the morning. They study from five to seven o'clock. From seven to eight o'clock they have breakfast. From eight in the morning to two, P. M., is spent in the school-room, a period of six hours. At two they have dinner; and from three to five are allowed to walk or take other exercise. From five to six they study; at six have tea, and then study from seven to nine, when they are sent to bed.

Their diet is light and unsubstantial, and their appetites under such a regimen are as feeble as the diet.

Now here the day of a young, growing, spirited school-girl is divided into periods of seven hours for sleep, three for meals' two for exercise, and twelve for study. Every person under full adult age needs eight or nine hours' sleep, and, in order that sleep should be healthful and refreshing, they require at least six hours of recreation and active exercise. The time for meals is sufficiently ample in the instance here mentioned, but to allow only two hours for exercise, and that in the afternoon when heat and fatigue dispose them to rest, is positively murderous. And twelve hours' study per day is at least six hours too much for any young person.

A child in full, vigorous health, will acquire more knowledge in six hours daily, than in twelve; for full health and mental vigor is incompatible with the discipline we have described.

This system of education takes young, robust, romping girls, and transforms them to slow, languid, pale, worthless women. To acquire skill on the piano, a little bad French, and a namby-pamby knowledge of a few of the "English branches," they sacrifice health, energy, all capacity for the duties of womanhood, and not unfrequently life itself.

Our prescription in the case on which these remarks are founded was, of course, a simple one—to stay at home and abjure boarding schools.—*Buf. Med. Jour.*

The following circular is put forth by the Sydenham Society of London. This Society was instituted in 1843, with the view of supplying its members with standard Medical Works. The subscription, constituting a member, is five dollars annually, payable in advance. The following extracts from the laws will explain the objects of the Society :

I. The Society is instituted for the purpose of meeting certain acknowledged deficiencies in existing means for diffusing medical literature, which are not likely to be supplied by the efforts of individuals, and shall be called the “ Sydenham Society.”

II. The Society will carry its objects into effect by a succession of publications, embracing among others : 1. Reprints of standard English works, which are rare or expensive ; 2. Miscellaneous selections from the ancient and from the earlier modern authors, reprinted or translated ; 3. Digests of the works of old and voluminous authors, British and foreign, with occasional biographical and bibliographical notices ; 4. Translations of the Greek and Latin medical authors, and of works in the Arabic and other Eastern tongues, accompanied, when it is thought desirable, by the original text ; 5. Translations of recent foreign works of merit ; 6. Original works of merit, which might prove valuable as books of reference, but which would not otherwise be published, from the slender chance of their meeting with a remunerating sale—such as bibliographies, alphabetical and digested indexes to voluminous periodical publications, etc.

Three volumes, handsomely bound in a uniform manner in cloth, gilt edged, are usually issued in the year.

List of the Society's works, of which copies are still on hand, and from which new members, subscribing for the current year, may make a selection, on payment of an additional five dollars for any three volumes, with the exception of those to which an asterisk is affixed. Those to which an asterisk is affixed, or any other single volume, may be had for \$2 50 per volume.

Sydenhami Opera Omnia. 1 vol.

Hasse's Pathological Anatomy. 1 vol.

Rhazes on the Smallpox and Measles. 1 vol.

The Works of Hewson. Portrait and Plates. 1 vol.

- Dupuytren's Lectures on Diseases and Injuries of Bones. 1 vol.
 Dupuytren on Lesions of the Vascular System, etc. 1 vol.
 Memoirs of the French Academy of Surgery. 1 vol.
 Feuchtersleben's Medical Psychology. 1 vol.
 Microscopical Researches of Schwann and Schleiden. 1 vol. Plates.
 The Works of W. Harvey, M. D. 1 vol.
 The Genuine Works of Hippocrates. 2 vols.
 Essays on Puerperal Fever and other Diseases Peculiar to Women.
 1 vol.
 The Works of Sydenham, translated from the Latin. 2 vols.
 Unzer and Prochaska on the Nervous System. 1 vol.
 Annals of Influenza. 1 vol.
 Romberg on Diseases of the Nervous System. 2 vols.
 Kolliker's Manual of Human Histology. 2 vols. Wood cuts.
 *Rokitansky's Pathological Anatomy. Complete in 4 vols.
 *Hunter on the Gravid Uterus. 1 vol. Folio. 34 plates, with descriptive letter press.
 Wedl's Pathological Histology. 1 vol. Wood cuts.
 Oesterlen's Medical Logic. 1 vol.
 Velpeau on Diseases of the Breast. 1 vol.
 The Works of Aretæus, Greek and English. 1 vol.

RICHARD J. DUNGLISON, M. D.
Hon. Local Secretary for Philadelphia.

EFFECT OF BELLADONNA IN IMMEDIATELY ARRESTING THE SECRETION OF MILK.—Dr. R. H. Goolden has communicated to the *Lancet* (Aug. 9th, 1856) the two following cases which seem to show that belladonna possesses the power of arresting the secretion of milk.

E. J., aged 28, was admitted into Anne's Ward, St. Thomas's Hospital, with severe rheumatic fever. She had been ill four days, with a small child at the breast four months old. At the time of her admission she had swelling and acute pain in both wrists, right elbow, both knees and left ancle. The knee-joints were distended with synovia, and erythematous patches were on the skin of the knees, ankles, and wrists. She was bathed in perspiration, and the secretion of milk was abundant. According to the regulation of the hospital, the child was removed; indeed, from her helpless condition, it was necessary, considering the difficulty of attending to

an infant in a ward with other patients. Soon after her admission she took eight grains of calomel and a grain and a half of opium, followed by a senna draught; and one scruple of nitrate of potassa, ten grains of bicarbonate of potassa, and half a drachm of spirit of nitric ether, in peppermint water every four hours. The joints were covered with cotton wool.

On the following day, at two o'clock, I found she had been freely purged; the joints were in nearly the same state. She had had no sleep. The breasts had become tumid, hard, painful, knotty, and extremely tender. The superficial veins were distended. Some milk had been drawn, but the process was attended with great pain, and we could not listen to the heart's sounds on account of the tenderness.

A milk abscess, in complication with rheumatic fever, was of all things to be avoided, and unless the secretion could be at once arrested it appeared inevitable. In this strait I recollected that I had somewhere met with an observation (but I cannot remember whether it was in an English or foreign journal) that atropine applied externally to the breasts would dry up the milk; and, thinking it reasonable, I caused the areolæ of the breasts to be smeared with extract of belladonna, in the same way that it is used to dilate the pupil of the eye. I likewise ordered the addition of half drachm doses of colchicum wine, knowing that whenever milch cows eat meadow saffron in the pasture they immediately become dry; and though I have not much faith in colchicum as a remedy in rheumatic fever uncomplicated with gout, there could be no objection to its use, and it has the sanction of much higher authority than my own.

On my third visit, the following day, the first inquiry was about the breasts. They were all right. But was it the colchicum or belladonna that had relieved them? The extract was used before I left the ward; before the mixture was given the secretion of milk had been arrested and the breasts had become soft. The rest of the case has no further special interest. I will only state that there was no heart affection, and that the fever, though very severe while it lasted, was of short duration, and the patient left the hospital quite well in fourteen days.

The second case that occurred to me was uncomplicated with any disease, and such as would usually fall under the care of the accoucheur rather than the physician.

A lady, the wife of a clergyman, was travelling with her husband, and, in order to accompany him, had weaned her baby (then seven months old.) Happening to be at Oxford at the commemoration festival, he came to me

in great trouble, telling me that his wife had done a foolish thing in weaning the child, and that they were now arrested in their progress in consequence of the state of her breasts. They were tumid, very tender, painful, and hard, with large superficial veins, and the milk had been drawn with difficulty several times with temporary relief. I recommended the application of the extract of belladonna to the areolæ, desiring them to send for a medical practitioner if the inconvenience did not immediately subside, or unless she felt quite well. A few days brought me a letter, giving a very satisfactory account, and thanking me for what she was pleased to call my wonderful prescription. Within two hours she was perfectly relieved, the milk absorbed, and (what is very important) there was no fever or other inconvenience attending the sudden suppression of the milk; and, instead of taking the opening medicines I had prescribed for her, she continued her journey the next morning.

I have not been able to discover that the fact that belladonna is available for the purpose of arresting the milk secretion is at all generally known—certainly it was not to several accoucheurs in large practice of whom I have inquired. The fact is important if true, for then milk abscesses will become a matter of past history, and probably many diseases of the breast may be rendered less complicated by its use.

The two cases I have detailed are not sufficient to prove that it will always be either successful or safe, but they render it highly probable that it is so.—*American Journal*.

THE DECOMPOSITION OF URIC ACID IN THE ORGANISMUS.—Neubauer has instituted some investigations on rabbits for the purpose of ascertaining what changes uric acid undergoes in the organismus. In the normal condition, with pure vegetable food, the urine of these animals was turbid, and had a tolerably strong alkaline reaction. By far the greater part of its sediment consisted of the characteristic crystals of carbonate of lime. When the urine was not quite fresh, some crystals of the ammonio-phosphate of magnesia were found in it, and also some oxalate of lime in its well known form. The urine, in addition, contained SO_3 , Cl , a little PO_3 , and only small quantities of urea; uric acid could not, by the most careful examination, be found.

When fed with white bread, the urine of the rabbits speedily acquired a slight acid reaction. Oxalate of lime, as before, was observed in the sediment, and the quantity of urea increased considerably—in fact, rose from

1.5 grm. to 2.3 grm. in twenty-four hours. The quantity of phosphoric acid also increased.

In five days the rabbits took with their food 12 grm. of uric acid, without any apparent disagreeable result. Their urine was collected from time to time, and dried in a water bath: a considerable quantity of urea was found therein, but no hippuric acid. The examination of this urine for oxalic acid, when conducted with great precaution, proved the presence of oxalate of lime. Uric acid was also detected in well-defined crystals. Magnesia and phosphoric acid were found, but no allantoin.

As the normal urine of rabbits always contains oxalate of lime, the production of oxalic acid could not be attributed alone to the oxidation of the uric acid administered to them. It appears probable that the uric acid is chiefly decomposed in the organismus into carbonic acid and urea, because in the research detailed no body was found which could be regarded as a farther product of the decomposition of that substance. The increase of urea, on the contrary, could be readily observed; for while the animals took daily from 2 to 3 grm. of uric acid, and at the same time emitted about 4 grm. of urea, the separation of urea sank when the same food was administered for some days without the uric acid, to 2 grm., and the quantity separated rose again immediately upon the admixture of the uric acid with the food.

The rabbits were now fed with carrots, grass, etc., to regain their normal condition. The urine had again acquired its normal alkaline reaction, and contained, upon an average, about 1.34 grm. of urea. Within two days the rabbits were supplied with 24 grm. of uric acid mixed with carrots. The urine, with this diet, still retained its alkaline reaction, and during three days it afforded 20 grm. of urea; but on the fourth, the quantity of urea sank to its normal condition.

Now, if 1.34 grm. of urea was emitted upon an average in twenty-four hours, when the animals were fed upon a pure vegetable diet, we have to consider about 4 grm. of urea emitted per day, as the oxidated product of the uric acid swallowed by the rabbits. These results, therefore, appear to show that in the normal condition of animals uric acid is decomposed into urea and carbonic acid, but that during a retardation of the oxidation process by sleep, and by many pathological conditions, oxalic acid is formed. For both Wöhler, and Frerichs, and myself have observed that when uric is taken before sleep, in the sediment obtained from the morning urine oxalate of lime could be easily observed.—*Lancet*.

BUCHU IN GONORRHŒA.—*By Dr. H. Hancock.* I beg, through the medium of your valuable paper, to call the attention of the profession to the infusion of buchu as a remedy for gonorrhœa. I have found, from extensive experience, that the buchu is quite as efficacious as the balsam of copaiba; consequently it is preferable, as it does not possess that disagreeable odor so objected to by patients, nor can the friends of the patient be aware, by any inspection or smell of the medicine, of the nature of the complaint under which the individual is laboring. I have treated, during the last twelve months, upwards of one hundred cases of gonorrhœa by the administration of the infusion, with the greatest success, rarely having recourse to injections, except where the disease has been neglected for some time.—*London Lancet.*

MODE OF REDUCING STRANGULATED HERNIA, AFTER FAILURE OF THE TAXIS, BY A BLOODLESS OPERATION.—M. Seutin, the eminent surgeon of Brussels, is endeavoring to establish, in a Belgian medical journal, the superiority of *tearing* either the inguinal or crural ring, over incising the same, for the reduction of strangulated hernia. He quotes experiments on the dead body, and several successful cases; and is confident that his method will soon supersede the operative measures generally resorted to. He places, first, great reliance on graduated taxis, continued with due precautions for a considerable period; and when this fails, he endeavors to hook his index finger round the margin of the ring, by passing it between the tumor and the abdomen; and by using a certain force, he causes the fibres of the external oblique to give way and crack to an extent sufficient for the reduction of the hernia. M. Seutin defends his practice with considerable ability, and hopes trials will be made.—*London Lancet.*

ON THE INFLUENCE OF CIRCUMCISION IN PREVENTING SYPHILIS.—Mr. Jonathan Hutchinson says: "The Metropolitan Free Hospital being situated in a locality in which many Jews reside, its out-patients room furnish a good field for estimating the relative prevalence of different diseases among them and others. The following statement of my past year's experience as to venereal diseases appear to have some importance, and I am induced to communicate it at the present time with especial reference to a paper which appeared in the *Medical Times and Gazette*, of Nov. 17, from my friend Mr. Cooper Forster, recommending the more general practice of circumcision as a preventive of certain diseases of childhood. My

Jew patients have, I believe, been in proportion of nearly one-third of the other. The subjoined table shows the proportion of the two classes of venereal disease.

	Total of Venereal Cases.	Gonorrhoea.	Syphilis.	Proportion of Gonorrhoea to Syphilis.
Not Jews.....	272	107	165	0.6 to 1
Jews.....	58	47	1	3.4 to 1

Thus we find that, notwithstanding a gross proportion of nearly one-third to others, the cases of syphilis presented by Jews are only as one to fifteen. That this difference is not to be accounted for, either by their superior chastity, or by their unwillingness to seek medical aid for such diseases, is conclusively proved by the fact they furnish very nearly half the cases of gonorrhoea. The circumcised Jew is, then, very much less liable to contract syphilis than an uncircumcised person. This conclusion has, I believe, been long entertained by many surgeons of experience, but I am not aware that it has ever before been made the subject of demonstration. No one who is acquainted with the effects of circumcision in rendering the delicate mucous membrane of the glans hard and skin-like, will be at a loss for an explanation of the circumstance. Taking, then, this fact as established, it suggests itself as probable that circumcision was by Divine command made obligatory upon the Jews, not solely as a religious ordinance, but also with a view to the protection of health. Among them promiscuous intercourse was certainly not regarded in the heinous light which it is under the present dispensation while polygamy and concubinage were openly permitted. One is led to ask, witnessing the frightful ravages of syphilis in the present day, whether it might not be worth while for Christians also to adopt the practice. Such a proposition, if intended only to protect the sensualists from the merited consequence of loathsome vice, would, as it is to be hoped, be dismissed at once by every right thinking man. But the matter is much wider. In syphilis the innocent suffer with the guilty, and the wife and children have often to bear the penalty of the sin of the husband and father. During the period from which the statistics just adduced have been obtained, I have had under my care at the hospital a total of 252 children under the age of five years. Of these, 179 have been of Christian parentage, and 73 of Jewish. Among the former have occurred 27 cases of congenital syphilis, while among the latter there have been but three. Thus it would appear but one twenty-fourth of the surgical diseases of Jewish children acknowledged a syphilitic cause,

while no less than one-sixth of those of Christians are of such origin. In this calculation I omit altogether the numerous diseases which are, in all probability, remotely dependent on syphilis, and comprise those only which present the disease in a well-marked form. The same inferences are pointed out by counting the proportion of syphilis cases in women. Of a total of 97 women who have, during the years come under treatment for one or other form of venereal disease, 92 have been Christians, and 5 Jews. Of the 91 of the former, no fewer than 61 have suffered from syphilis, and at least two-thirds of these have been married women, who, there was every reason to believe, had contracted the disease from their husbands without any fault of their own. With regard to its being the duty of the surgeon invariably to remove the prepuce of infants born with congenial phymosis, which Mr. Forster, in the paper referred to, so ably points out, I have long held a similar opinion with his own. That opinion, together with some reason for it, are recorded at page 415 of the "Medical Times and Gazette" for Oct. 23, 1852.—*Glasgow Med. Journal.*

ON THE EMPLOYMENT OF CHLORATE OF POTASS—*By M. Isambert.*
In this paper, M. Isambert, after giving the history of the employment of the chlorate since its discovery by Berthollet, its disuse, and recent revival by Hunt and others, states that he has of late investigated its therapeutical action in M. Blache's wards, at the Children's Hospital, and its physiological effects by experiments upon himself. Passing over these latter, we briefly present the conclusions he has arrived at in regard to its medicinal employment.

1. *Gangrene of the mouth.*—On carefully examining Mr. Hunt's observations, he considers it very doubtful whether he has always had to do with true gangrene of the mouth, having rather confounded this affection with ulcero-membranous stomatitis, in which the effects of the chlorate are truly remarkable. In two cases of gangrene he did not find it very serviceable; and West, who carefully distinguishes between the two affections, seems to have come to the same conclusion.

2. *Ulcero-membranous stomatitis.*—This term, adopted by Rilliet and Barthez, well explains the nature of the affection, there being in fact, both ulceration and the formation of false membrane present, the one predominating in some cases, and vice versa. It is a most obstinate affection, having no natural tendency to a cure, and being very liable to relapse. West first employed the chlorate in this affection, and his success with it has been

amply confirmed by Blache, Herpin, Bergeron, and others on the continent. Eight cases which have occurred to the author speak equally favorably. Relapse may, however, occur, though far seldomer than under any other remedy; and it should, therefore, be continued for some time after the fall of the false membrane. The chlorate, too, is powerless against the alveolo-dental pyorrhœa, or ulceration of the borders of the gum, with purulent issue from the alveoli on pressure being made upon the gum. The mean duration of treatment of these eight cases was from three to five days for the production of the fall of the membrane, and five to ten for a complete cure. When the cure was longer delayed, relapse had occurred, or the alveolo-dental pyorrhœa was present.

3. *Aphtha*.—The vesiculo-ulcerative state of the buccal cavity, to which this appellation is now confined, is in general a very mild affection, and curable by simple means. Sometimes, however, numerous and confluent ulcers produce much pain, impede feeding, and are very tedious in healing, and induce constitutional disturbance. In a case of this kind the chlorate effected a rapid cure.

4. *Muguet*.—M. Legroux has tried it in several cases of epidemic muguet at the Hôtel-Dieu, but without any favorable result. During the trials, it was found to pass rapidly into the milk of the nurses, and in this way it may be administered to infants.

5. *Scorbutus*.—M. Fremy has found the medicine of use in this disease; and thus we find the moderns returning by another route to one of the first affections the chlorate was recommended for, on the theory of deoxidizing the salt in the economy.

6. *Diphtheritis*.—Observations commenced by M. Blache, and continued by the author, leave no doubt as to the utility of the chlorate. In this affection there is, however, every gradation from the most simple to the most malignant form, a sign of most unfavorable augury being found in the swelling of the parotid and deep-seated cervical glands—enlargement of the submaxillary glands occurring in even the simplest forms. Of thirteen cases, the chlorate was exclusively employed in four, and the cure was rapid, the cases being mild ones. In two, although cauterization with nitrate of silver, was employed at the beginning, the success was attributable to the chlorate. In two others, cauterization was simultaneously employed, but the cure was not more rapid than in the others. The 9th case was a very severe one following scarlatina, and the patient was cured by the chlorate and quinine, without the aid of cauterization. The four others died, but

they were cases of a very grave description. The chlorate is, therefore, no heroic remedy, always curing angina maligna, nor is its action immediate; for, although it appears in the saliva a few minutes after administration, it requires at least twenty-four hours, and usually three or four days, before it can effect its purpose. It should, therefore, be commenced with early.

7. *Croup*.—The success attendant upon the chlorate in diphtheritis naturally led to its employment in croup. The author relates four cases in which the chlorate seemed to have succeeded, and refers to eleven others, in which tracheotomy was resorted to also, whether because the medicine did not seem to be taking effect with sufficient speed, or that tracheotomy having been already employed, it was given as an adjuvant to prevent the reproduction and extension of the diphtheritis. Of these eleven cases, some of which were very severe, there were eight recoveries and three deaths. Between the 1st of January and end of March, 1856, tracheotomy was performed in M. Blache's wards fourteen times with nine recoveries and five deaths, all the children taking the chlorate either prior to or subsequent to the operation. If this success be not due to the occurrence of a run of lucky cases, which occasionally occurs in practice, the result is remarkable, as the proportion of recoveries after tracheotomy, at the same hospital, has averaged during the last six years but one in four to one in five. When tracheotomy has been performed, the use of the chlorate is especially indicated, when there is a tendency in the diphtheritis to extend to the bronchi, pharynx, or nasal passages. It should be combined with expectorants and considerable doses given.—*Gaz. Médicale. Virg. Med. Journal.*

CONSIDERABLE HYPOSPADIA; FECUNDATION.—Dr. Traxel, of Kressier (*Weiner Med. Wochenschrift*, 1856, No. 19), was lately called upon to decide on the sex of a child, which presented exactly the same genital malformation as its father. The latter had hitherto been taken for a woman, and sleeping habitually in the same bed with a fellow farm-servant, really of the female sex; the child had been the consequence of that circumstance. The following is the condition of the father: The penis is shorter than usual, but thicker and imperforate; the scrotum is divided in two sacs, each of which contains a testicle. At the root of the penis, at the anterior commissure of the sacs, there is a foramen, which would admit a small pea, and from that foramen springs a groove running along

the under part of the penis. There is no prepuce. In the groove, and about a line behind the corona, are two elliptical openings, large enough to admit a bristle, and another small hole is observed further back, two lines from the urethral orifice. The author of the paper is inclined to believe that the anterior foramina are the orifices of the ejaculatory ducts, and that by their means fecundation had taken place. Perhaps it would be simpler to look upon them as the openings of the mucous ducts usually found in this region, and to conclude that fecundation had taken place at the foramen allowing of the passage of the urine.—*London Lancet.*

SANITARY EFFECTS OF TREES.—The interposition of a dense forest, of a high wall, a chain of elevated hills, or any other mechanical obstacle, has been known to protect the inhabitants of villages, of camps, of convents, and of single habitations, from the pestiferous influence of neighboring marshes. A convent situated on Mount Argental, near the village of St. Stephano, was for a long time remarkable for its salubrity, until the trees by which it was surrounded were cut down, when it became extremely sickly.—*London Lancet.*

NATURE OF POVERTY.—We clip the following very suggestive paragraphs from the report of Dr. Edward Jarvis on "Insanity and Idiocy in Massachusetts :"

"In this connection, it is worth while to look somewhat at the nature of poverty, its origin, its relation to man and to society. It is usually considered as a single outward circumstance—the absence of worldly goods ; but this want is a mere incident in this condition—only one of its manifestations. Poverty is an inward principle, enrooted deeply within the man, and running through all his elements ; it reaches his body, his health, his intellect, and his moral powers, as well as his estate. In one or other of these elements it may predominate, and in that alone he may seem to be poor ; but it usually involves more than one of the elements, often the whole. Hence we find that, among those whom the world calls poor, there is less vital force, a lower tone of life, more ill health, more weakness, more early death, a diminished longevity. There are also less self-respect, ambition and hope, more idiocy and insanity, and more crime than among the independent.

"The preponderance of mental defect and disease among the poor, is

unquestionably shown by the comparison of the number of lunatics and idiots in the two classes. None could for a moment suppose that the total of these classes, the independent and the pauper, are in this ratio.

"This is not only a demonstrable fact in Massachusetts and Great Britain, and probably elsewhere, but it proceeds out of a principle which is fixed in the law of our being—that poverty is not a single fact of an empty purse, but involves in various degrees the whole man, and presents as many facts as there are elements of our nature that can be depreciated or perverted. Insanity is, then, a part and parcel of poverty; and wherever that involves any considerable number of persons, this disease is manifested.

"When the poor become thus sick and dependent, although friends may, in some instances, be able and willing to step in and meet this expense, yet, unfortunately, they, too, are generally poor, and the public treasury is the only and the necessary resort for help; and especially when any one becomes insane, the town or the State necessarily assumes the burden. Moreover, as this disease, more than others, is lasting, it would more certainly exhaust any little gathered store of the poor, and the power and the patience of friends, and then, if the lunatic is not at once thrown upon the public, he must ultimately reach that end."—*Cincinnati Medical Observer*.

RACAHOUT DES ARABES.—From a recent edition of Bouchardat's *Formulaire*, we take the following recipe for the racahout powder, which is now much used as an agreeable and nourishing diet with dyspeptics and convalescents. R.—Dried cocoa, $\mathfrak{z}\text{iv}$; potato flour and rice flour, each $\mathfrak{z}\text{x}$; sugar, $\mathfrak{z}\text{xv}$; vanilla, $\mathfrak{z}\text{ss}$. One or more spoonsful in $\mathfrak{z}\text{viii}$ of boiling milk.

The Wakaha des Indes is an analagous preparation, by some preferred to racahout. We give the formula. R.—Powdered sugar, $\mathfrak{z}\text{x}$; dried cocoa, $\mathfrak{z}\text{iv}$; vanilla, $\mathfrak{z}\text{j}$; canella, $\mathfrak{z}\text{iv}$; ambergris, grs. v. Used in the same doses as the former compound.—*Virginia Med. and Surg. Journal*.

SANTONIN AS AN ANTHELMINTIC.—By Dr. George G. Perry. Having had several cases during the last six months (among the poor) of children suffering from worms, I was induced to try the effect of santonin, and, from the very satisfactory results which have arisen from its use, I think it may be interesting to your readers if I give publicity to the same.

Among the first cases treated was that of a child, of two years of age,

to whom I gave three grains of santonin, followed in two hours by an aperient powder; this child voided the next morning, at one time, thirty-seven worms, some of them a foot in length, of the lumbricoid ascaris kind. Two children, in another family, were similarly treated, and between forty and fifty worms came from each; again, in a family of four, 124 worms at one time, and many more afterwards, followed the aperient, each child having taken one dose of santonin. I could instance many more cases which have been relieved by this medicine. After the expulsion of the worms I give a tonic mixture, containing the muriated tincture of iron and muriatic acid, and changed the diet from a vegetable one to that of meat and bread. My cases all do very well.

I should state that santonin is a medicine that may be administered with perfect safety. I give it in its crystallized form, between bread and butter, and, two hours after it, a dose of calomel and jalap; in some cases an interval of twenty-four hours occurs before the worms are voided.

The persons who reside in the locality in which I have met with these cases, are very poor, and, from the high price of bread this winter, have had recourse to vegetables of the commonest description as an article of food, which will account for the presence of worms in the alimentary canal.—*Med. Times and Gazette.*

TUBERCLE OF BRAIN; WITH REMARKS.—*By Wm. Pepper, M. D., one of the Physicians of the Pennsylvania Hospital.* A young man, aged 18 years, entered the hospital April 3, 1856, complaining of severe paroxysmal headache. He stated that the first attack came on about three months before, and lasted only a few minutes; from this time it recurred every two weeks until the end of the second month, when the pain became more frequent and protracted, coming on every week during the afternoon, and lasting about half an hour. It was not confined to any particular locality; at times shooting through the temples, and then in the back of the head; frequently it was so severe as to cause the patient to shriek, and was then evidently attended with some confusion of ideas, though during the intervals his intelligence was unimpaired. When first admitted, the paroxysms came on four or five times a day, and were evidently not so severe or protracted. He complained of tinnitus aurium and slight numbness of the upper and lower extremities, their sensibility, however, being unimpaired. Whilst in the horizontal position he appeared to have perfect control of his movements, but when attempting to walk, his gait was

staggering, and he was evidently disposed to fall backwards. The pupils were occasionally dilated, but contracted under light, and the sight was apparently as good as usual; his sense of smell, taste and hearing were also natural, nor was there the least distortion of his features, dysphagia, or other manifestations of paralysis.

Though carefully interrogated, he persisted in stating that he never had been subject to cough, pain, expectoration, or other pulmonary symptoms; he admitted, however, that his mother had died of phthisis, and that last summer, whilst making some unusual exertion, he had thrown up about a tablespoonful of pure blood. The patient was also thin and pale, but without hectic fever; pulse variable, at times frequent, and then again slow; loss of appetite, but no vomiting; bowels constipated. Percussion under the left clavicle was dull, and in this locality the respiratory murmur was feeble and attended with some crackling and prolonged expiration; throughout the rest of the lungs nothing abnormal could be detected. It was also observed that the ends of the fingers were somewhat enlarged and the nails curved, in the manner so often seen in tubercular diseases. The treatment consisted chiefly in the administration of *iod. potass. grs. v.* three times a day, in connection with the occasional application of dry cups to the nucha, followed by a small blister. He was allowed a moderately nutritious, but not stimulating diet; and to relieve the paroxysms took *ext. hyoscyam, grs. iii.* three times a day. No important change occurred up to the 16th of the month, when, for the first time, he was seized with convulsions, and immediately expired, just two weeks after his admission into the hospital.

On examining the body the following day, the membranes of the brain presented nothing unusual, and the cerebrum was of good consistence, and in all respects perfectly natural. The cerebellum, however, was much softer than usual throughout, but especially so at the central portions of both hemispheres; and a large encysted tumor occupied the posterior part of its right lobe, but also encroached more or less upon the left side, and was attached to the pia-mater by loose cellular tissue. The mass was spheroidal, and measured about an inch and a half in its longest diameter; it was composed of firm yellowish-gray tubercular matter—such as is often found in the mesenteric glands—contained in a tough fibrous cyst about as thick as ordinary parchment. The apex of left lung was adherent, and somewhat indurated by tuberculous deposit in various stages of advancement, the rest of the lung being perfectly healthy; a few granular tuber-

cles were disseminated throughout upper lobe of right lung. Other organs natural.

The above case appears interesting and worthy of record, as illustrating, in a striking manner, the well known fact, that tumors of considerable dimensions may be imbedded in the brain without materially interfering with the functions of that organ. From the size and character of the mass, it is clear that it must have existed for many months, and was probably long antecedent to the paroxysms of pain, which, until a few days previous to death, formed the only manifestation to diseased action. It is also worthy of remark, that the pain was not only intermittent, but strictly periodical, and therefore well calculated to mislead as to its real cause. Most writers dwell upon this peculiarity in affections of the brain, but it is not often that a case so strongly illustrative of this fact falls under observation. By a singular coincidence, the previous occupant of the same bed died with contral softening of the cerebrum, and presented a very similar train of symptoms. Here, too, the pain was intermittent, and at times more or less periodical, though not to the same extent as in the case just reported; and yet sufficiently so to have induced his former physician to administer quinia in full doses, arsenic, belladonna, aconite and other anti-intermittent and neuralgic remedies. What is not a little remarkable in this case, is the circumstances that the paroxysms of pain, though clearly the result of inflammatory action, were nevertheless postponed and mitigated by the *quinine treatment*. Quite recently the writer saw in consultation with Dr. Morris, a remarkable instance of cancerous tumor, but little less than a pullet's egg, imbedded in the central portion of left hemisphere of cerebrum; and yet, until a few days before death, unattended with delirium, paralysis, or convulsions. The patient, it is true, had been for several years subject to violent sick headache, coming on at irregular periods; but presenting nothing peculiar, or in any way calculated to excite suspicion as to the existence of organic disease of the brain. And indeed it was nothing but the cancerous cachexia, in connection with a deep-seated tumor in the pelvis, that enabled his physicians to predict a similar degeneration in the brain, even after cerebral symptoms had declared themselves.

In like manner, in the case under consideration, it was not until the tinnitus urium, numbness, dilated pupil, etc., had supervened, in connection with the knowledge of the tubercular affection of the lungs, as manifested by the physical signs, that the real nature of the brain affection was

fully comprehended. In this connection it may not be uninteresting to allude to the latent nature of the pulmonary disease as associated with, and influenced by, the cerebral tumor. It will be observed that the patient had neither cough, expectoration, dyspnœa, or other symptom indicative of disease of the lungs; and we cannot but think that this peculiarity was owing to the diseased condition of the brain rendering it insusceptible to the impressions transmitted from the suffering organs. On the same principle, we frequently find even acute and extensive pleuro-pneumonia perfectly latent. It is no uncommon thing for patients to enter the wards suffering with fever and delirium, but entirely uncomplicated by cough, expectoration, pain or oppression; and yet, auscultation and percussion revealing in these cases extensive inflammation of the lungs; and it is interesting to observe that just in proportion as the brain symptoms subside, the cough, rusty sputa, pain and oppression are developed. So much so, indeed, is this the case, that the writer is constantly in the habit of making a careful exploration of the chest in all cases of obscure cerebral affection; and he has certainly thus been enabled to form a correct diagnosis, and consequently to institute a rational treatment in many cases, which must otherwise have been entirely misunderstood. Owing to a neglect of this precaution, it frequently happens that pneumonia or pthisis in the insane steals a march on the medical attendant, or even runs on to a fatal result, without having awakened the least suspicion as to the real state of the case. Now, although in the case above reported the symptoms were not the same as in the instances just referred to, yet the analogy is sufficiently close to justify the belief that the tubercular affection of the lungs was marked by the accompanying cerebral complication; it is true there was no marked delirium, yet it is equally clear that the general sensibility was greatly obtunded.

In conclusion, it may be observed that the pathological appearances presented nothing very unusual, since most writers on diseases of the brain allude to instances of a somewhat similar character. Abercrombie reports the case of a child only three years old, in which there were "two tubercles the size of large walnuts in the posterior parts of the cerebellum;" and another case of a lad aged seven years, who, until a short time before death, presented no cerebral symptoms, and yet had imbedded in the right hemisphere a tubercular mass "nearly five inches in circumference." The present case, however, appears especially interesting, not only as showing the perfectly paroxysmal character of the pain which occasionally attends

under these circumstances, but also as affording an instance of a latent tumor of the brain tending to mask a serious concomitant disease of the lungs.—*Medical Examiner*.

NEW OPERATION IN SURGERY.—*Disarticulation of the Scapula*.—The entire scapula, with its processes and glenoid cavity, were removed, in the Royal Infirmary of Edinburgh, on the 1st inst., by Mr. Syme, on account of a cystic-sarcomatous tumor. The patient, an elderly female, is doing well, and the arm promises to be wonderfully little diminished in usefulness through the absence of the shoulder-blade.—*Lancet*, Oct. 11, 188.

[This is not the first time that disarticulation of the scapula has been performed. During the last spring a man entered the Charity Hospital in this city, with the whole shoulder so terribly lacerated (railroad accident) as to induce the operation. The accident happened in the country, and it was many hours before the patient entered; consequently he was extremely exhausted. The operation was performed by Dr. Choppin, resident surgeon, but without success.—ED.]

TANNIC AND GALLIC ACIDS.—Headland considers that tannic acid is better for external, and gallic for internal use. Tannic acid precipitates both albumen and gelatine, but gallic acid does neither. Tannic acid is supposed to be a compound of gallic acid and grape sugar, three atoms of tannic acid being equivalent to six atoms of gallic acid and one of grape sugar. Tannic acid may be decomposed in the stomach by the conversion of the grape sugar into carbonic acid and water, setting gallic acid free, which passes out into the secretions after exerting an astringent action on various organs and tissues. As tannic acid loses weight by this decomposition, it follows that a dose of gallic acid produces a greater effect than an equal amount of the other. Gallic acid does not precipitate albumen, and therefore is of little use as an external astringent; but a mixture of a solution of gallic acid with one of gum will precipitate albumen, although neither will do it separately. It is probable that gallic acid may unite with saccharine matter in the blood, and thus acquire an astringent power which it does not exhibit externally, because then isolated. These two acids, and the substances which contain them, are used in diarrhea, and hemorrhage. To diminish sweating, gallic is inferior to sulphuric acid, but to act as a remote styptic, it is preferable to the other. Tannic

and gallic acids diminish the secretions generally. They are very useful in cases of hæmaturia, where sulphuric acid is all but useless.—*Memphis Med. Recorder.*

ON THE DEVELOPMENT OF VEGETATIONS ON THE GENITAL ORGANS OF FEMALES DURING PREGNANCY.—Dr. Thieberge, of Paris, in an article published in the "Archives Generales de Medecine," for May, 1856, describes certain vegetations and tumors appearing on the genital organs during pregnancy, as an occurrence entirely independent of syphilis, and merely resulting from the effects produced by the condition of utero-gestation. The immediate cause of these appearances he considers to consist in, either the congestion existing in the vaginal mucous membrane during this state, or the irritation occasioned by the discharges so frequently present—more especially taken in connection with the congestion of the parts. After quoting several authorities, and the facts observed in a few cases, as supporting his opinion, he concludes by stating that such vegetations are nothing more nor less than the effects of pregnancy; that they are frequently difficult of cure while this condition lasts; and that they ought to be treated, not by general, but merely by local measures.—*Edinburg Med. Journal*

WHO WAS THE INVENTOR OF THE AIR-TRACTOR?—Dr. Sieboid publishes a paper to prove that the dispute between Simpson and Mitchell, as to the priority of inventing the air-tractor, is quite unnecessary, inasmuch as that honor belongs to neither of the claimants. He affirms that the introductions of an air-tractor into our obstetrical armamentarium, was first made by Samann, of Reichenbrand, near Chemnitz, as early as the year 1796. In proof of this, he refers the reader to *Stark's Archiv.*, Bd. vj. 4. St. The inefficiency of the instrument, he adds, has now become universally acknowledged.—*Monatschrift. für Geburtsk.* vj. 6. 1855.

WIDOWS AND ORPHANS OF PHYSICIANS.—The New York Society for the Relief of Widows and Orphans of Medical Men, which eat its annual dinner last Tuesday evening, is now fourteen years old. How it flourishes may be guessed from its annual statement. The society was instituted in 1842, and the funds now amount to \$19,911, of which \$19,200 is invested in mortgage; the balance will be more than absorbed in a loan

lately ordered by the Standing Committee, which waits the necessary investigation of title, and, when completed, will make the society temporarily indebted to the treasurer.

The investments draw seven per cent., and are, without exceptions, on improved property in this city and Brooklyn; and, as an additional security, the buildings are all of them insured and the policies assigned.

The receipts for the year ending in September were \$1,865 12; disbursements for the same period, \$220 75.

Since the last anniversary dinner fifteen members were elected, making the whole number ninety; of these fifty-one are for life, and thirty-nine annual subscribers; besides the number of benefactors have doubled, now numbering eighteen, of whom four are laymen. The society continues to extend its usefulness to the family of a deceased member.

At the general meeting of the society in November, members can be proposed and balloted for at the same meeting. Annual members pay an initiation fee of \$10, and \$10 dues in semi-annual payments; and \$100 paid at one time constitutes a member for life.—*N. Y. Times*.

TREATMENT OF RANULA.—M. Gosselin, after alluding to the various modes of treating ranula that have been adopted, and the relapses that are so common after them, describes the plan that he has himself found beneficial. He first of all performs excision, as recommended by Boyer, and then cauterizes with the nitrate of silver. Next day he introduces a probe into the wound, owing to its tendency to close, and repeats the cauterization the day after that. On the third or fourth day he enlarges, by means of the scissors, the aperture, which has become too narrow, and on the following day cauterizes again. After ten or twelve days of this assiduous attention, if, on the introduction of a probe, he finds the cavity is obliterated, he leaves the opening to itself. If, however, a track of a certain extent still exists, he again enlarges the orifice with scissors. This attention to the case is rarely required beyond fifteen days, when the external opening becomes closed, and the cavity being obliterated, there is no fear of relapse. M. Gosselin has operated in this way in several cases, and in three of these, which he has watched for several years, no relapse has ensued, the opening remaining closed. This plan of procedure has also been extended to various analogous cases, in which there is a cavity with secreting walls, having no spontaneous tendency to approach each other.—*L'Union Medicale*.

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ADHERENT PLACENTA.

Messrs. Editors.—In the course of almost twenty years' practice of medicine in and adjacent to the town of Washington, Texas, it has been my privilege to make some medical observations, and if I should, in the meantime, come to some conclusions different in any respect from the balance of my medical brethren, I think it not only a privilege, but a duty, to express them. In doing so, I am sure I will do no harm, and humbly trust to be the instrument of inciting others to investigate the subject on which I propose to write, viz: *Adherent Placenta*.

Then, as I am not in favor of long papers, I will come to the point at once. During the period above stated I have not been so unfortunate as to have had a case of adherent placenta in my practice. It may be said by some that my practice has been limited. In reply, I would remark, I have attended as many as twenty-five or thirty cases of midwifery per annum. As it may be contended that my patients, living in a rural district, were more healthy, and not subject to the thousand ills poor females are doomed to in our densely populated cities. Should this be urged, I have only to state that the population of Texas is made up of people from all parts of the civilized world, and it has not only fallen to my lot to attend ladies from most of the cities in the United States, but quite a number from different parts of Europe, and negroes by the hundred.

Then is it not rather strange, that I have not met with this serious complication of parturition?

I wish not to reflect on any person, and far be it from my intention to be understood to say that I do not believe that adherent placenta may occur; but my object in sending you this communication is two-fold:

1st, to state briefly what my mode of procedure has been in midwifery practice; 2d, to offer a few facts, and draw some deductions therefrom.

1st. So soon as I can, after the delivery of the child, I place my hand firmly over the hypogastric region, and steadily, but with as much firmness as the female will bear without complaint, bring my fingers together, as if in search of the uterus. This I repeat as often as twenty times per minute. As a rule, in a very short time the uterus will be found contracting, and whenever I can distinguish the outline of the organ, I try to grasp it between my fingers and thumb pretty firmly and let my fingers glide over the body and fundus. This I repeat, as above stated, say at least twenty times per minute, until I think, from the apparent consistency of the organ, that it is firmly contracted on its contents. Then, and not until then, as a rule, do I make any traction on the cord. It may be said by some that such is the practice generally; but if it is, I have only to say that I have but too often seen the practical details above alluded to executed in a very unskillful manner. The female will often exclaim, when friction, etc., is attempted to be made, that she is so sore that she cannot bear it—that the pain is too great. In a case of this kind, use light friction, etc., at first, and divert her mind, if possible, from what you are doing; and, as a rule, in a few moments you may use as much force as you wish. Another point to which I may with some profit, perhaps, to some medical men allude, is not, as a rule, to make traction on the cord, unless the hand with which traction is not being made, is placed on the superior part of the body and fundus of the uterus, and with which the organ should be firmly grasped and pressed while the traction is being made on the cord.

2d. The uterus is a hollow organ, which, when distended beyond its normal capacity, is, in virtue of its natural inherent elasticity, prone to return, when relieved of the distending agent, to its natural dimensions and capacity. Moreover, in common with all muscular or contractile structures, after being in a state of tension for some time, either as a whole or a part, the readiness with which it is restored to its natural capacity, etc., is inversely as respects the degree of tension, and especially the length of time any part or the whole has been distended. If the above be admitted, then is it not self-evident that the os, and parts of the organ contiguous thereto, will contract more readily than the body of the organ? And as the placenta is ordinarily planted either in the body or fundus, and as the contraction of the organ is Nature's mode of breaking up the connections between the womb and placenta, should not the accoucheur, by all means, pro-

mote the contraction, as soon as he can, of that part of the organ on which the placenta is implanted? And is it not probable that a large proportion of the cases of reported adherent placenta have resulted from a neglect of the few rules I have laid down?

[Our highly esteemed correspondent does not say explicitly that he suspects many of the cases of so-called "adherent," to be merely incarcerated placenta—the incarceration being the positive result of too implicit a reliance on the powers or operations of nature, almost amounting to neglect on the part of the accoucheur; but we are sure that this is his meaning. If so, we promptly take sides with him. It has always been our practice, and we inculcate the idea amongst our pupils, to see to the speedy termination of the third stage of labor—in other words, to rid the woman of the placenta and membranes as soon after the delivery of the child as is consistent with her safety and the amount of labor devolving on the accoucheur in the particular case. During ten years' practice, we have never met with a case of true *adherent* placenta. We have been called in consultation, to assist in delivering women of what were deemed adherent placenta, but we have invariably found the mass to be simply incarcerated, (the os uteri having closed in front of it,) and we have in every instance satisfactorily traced the cause of the incarceration to what is termed the "masterly inactivity" of the accoucheur. Nature, or, in other words, a tired womb, failed to cast off the mass soon after delivery; the accoucheur, reposing unlimited confidence in her wisdom and power, waited on her, hour after hour; in the mean time, the muscular fibres of the os recovered their tone, closed up, and incarceration was the result.

Firmly convinced, from actual observation, supported by theory, (not theory supported by observation) we have pursued the plan of effecting, if possible, the speedy termination of the third stage of labor. In the commencement of our professional career we have sat for hours in anxious waiting on the operations of nature, and we then encountered incarcerated placenta. We were not long in changing our practice however, and we have never had any cause to regret the change. Within fifteen minutes after the delivery of the child, we are usually enabled, by passing the hand into the vagina, to seize the placenta at the os uteri, and by well-directed traction, deliver it in a few moments. Of course one hand is kept the uterus externally, as is recommended by our correspondent. Sometimes, it is true, we find that moderate traction on the cord, accompanied by external irritation of the uterus, brings the mass into the vagina readi-

ly, whence it is easily withdrawn. As a rule, however, we are opposed to relying on traction by the cord, inasmuch as it is slippery, too elastic, is sometimes very fragile, and the mode of making proper traction in the direction of the superior straight of the pelvis is a little complicated. The vulva, vagina, and os uteri of the woman who is very recently delivered are not only thoroughly dilated, but they are at this time possessed of a low degree of sensation, and the hand can frequently be introduced without giving the slightest pain. If the accoucheur has anything like a moderately sized hand, it can surely pass most readily into the passages from which a full grown foetus has just emerged. If we wait on nature for one or more hours, and she fails to complete delivery, or if traction on the cord, and external irritation, shall have been ineffectually persisted in for this time, then we find the introduction of the hand both difficult and painful, on account of the reaction which has taken place in the parts—to say nothing of the considerable degree of closure of the os uteri, which has most surely occurred.—ED.]



OBSTETRIC NOTES AND REFLECTIONS.

By D. WARREN BRICKELL, M. D., Professor of Obstetrics, New Orleans School of Medicine.

No. 1.

A case proving that Menstruation is not only Ovulation, with or without a sanguineous discharge; but that it is, also, the periodical exfoliation of the mucous membrane of the body of the uterus.

About six months ago, I was performing an autopsy in the dead house of the Charity Hospital. On an adjoining table lay the body of a stout young female, who was said to have died of disease of the heart. She had died a few hours previously, and was still quite warm. The thorax and abdomen were laid open. The body had been abandoned, and curiosity led me to examine the internal organs of generation. The uterus and appendages had been cut from the pelvis, and the anterior wall of the organ had been laid open. The parts had been thrown aside as possessing no especial interest. The moment I saw the organs I was struck with their being highly engorged with blood, and the uterus was considerably larger than usual. The pelvis was filled with blood which had flowed

from the vessels when the organs were detached. The next thing that attracted my attention was the most palpable specimen of *recent corpus luteum* in one ovary. The corpus was large and prominent, and the depression on its centre, exhibiting the point of escape of the ovule, was evident beyond all cavil. In this same ovary one other Graafian vesicle seemed fully matured, the parts surrounding it being highly congested, but the ovule had not escaped. The other ovary was generally congested, but there appeared to be no mature Graafian vesicle.

But the most interesting feature in the case, was the *complete absence of the lining membrane of the cavity of the body of the uterus*. The moment my eye alighted on the inner surface of the organ, I recognized the woodcut of Tyler Smith, in the May, 1856, number of the *Lancet* (Amer. edition), representing the inner surface of the uterus of a woman who died of apoplexy during the catamenial flow. Nothing could have been more striking than this resemblance; and if I had ever been skeptical in relation to the observations of the author, I was now bound to admit his accuracy. Down to the *os uteri internum* the mucous membrane was gone, and the inner surface of the organ rough, with innumerable blood spots scattered over it. All below the *os internum* was smooth, and in every respect natural in appearance. The difference in sensation conveyed to the finger by touching the two surfaces was as palpable as the impression conveyed to the eye.

The only doubt now remaining about the case was, whether it might not be a uterus which had very recently been delivered of an early ovum. More extended examination, however, proved clearly that this was not the case. The vagina was very small, and its mucous membrane highly corrugated; and there was a well defined hymen. To add to this, the *mammæ* showed none of the changes generally produced by early pregnancy.

The subject was, to all appearance, about eighteen or twenty years of age, and quite robust. She was the subject of *anasarca* to a considerable extent, and was said to have died very suddenly—her death being attributed to disease of the heart. I tried to get a more accurate history of her from the nurse of the ward in which she died, but, as is too often the case, she only knew that such a woman had been in the ward, had lived, and then had died.

Tyler Smith says, "According to my view, the mucous membrane of the uterus becomes excrementitious every month, and is discharged from the cavity of the uterus in a state of disintegration, and the uterus forms

a new mucous coat, by a process similar to the reproduction of lost parts." Coste and others speak of the exfoliation of the mucous membrane of the uterine cavity under certain circumstances; but, so far as I am aware, Tyler Smith is the original advocate of the theory above laid down. After reading all the observations I could procure on this interesting subject, I was altogether inclined to adopt this theory, and the case I have thus described only the more strongly tends to prove its correctness.

The specimen is carefully preserved in the museum of the New Orleans School of Medicine, and is certainly a valuable addition to the already extensive cabinet of rare and interesting specimens from nature.

Meddlesome Midwifery strikingly illustrated.—Late in the afternoon of January 8th, 1857, I was called to see Mrs. M. in labor. Found the patient a stout and healthy laboring woman, 26 years of age, and in her first labor. She had arrived at full term, and had had no trouble during pregnancy.

Of course I found a midwife in attendance, and from her I gathered the following information. The patient had been taken in labor at 10, P. M., of the 7th, had worked steadily and well along in the first stage until 10 A. M., of the 8th, when, thinking that she might expedite things somewhat, she ruptured the membranes, notwithstanding she did not think the os uteri was yet sufficiently open to allow the head of the child to pass through. With the evacuation of the waters all uterine contractions ceased, and, to use her own language, "labor stopped." She now waited an hour or so, and as the pains did not return, she determined to give some ergot. She gave it in pretty free doses, and soon aroused the organ to a degree of contractile effort "worse than anything they (the friends) had ever seen." This lasted rather more than two hours, when all action again ceased, and up to the late hour at which I saw her, there had been no return. She was merely tormented by "gnawing pains" in the back.

I found her lying on her back, complaining bitterly of her protracted labor, countenance indicative of despondency, and although greatly fatigued and feeling "very weak," still without any *disagreeable* general symptoms. She was glad to see me, but thought it strange that she had not done well in such "experienced hands" as those of her midwife.

The following conversation now ensued between this midwife and myself.

"Can you feel the child?" "Oh, yes." "Is the mouth of the womb entirely open?" "Yes." "What part of the child is presenting?" "The head."

I examined the patient per vaginam. Her first answer was correct. She could feel the child readily. The second answer was incorrect. The os uteri was not more than half dilated ; indeed, it was rather rigid. The reader may judge how correct the third answer was, when I tell him, that instead of touching the head of the child, my finger passed immediately into the *anus*—the whole vagina being filled with meconium.

Auscultation revealed the fact that the child was still living, though the pulsations of the heart were both feeble and irregular. I waited on her an hour, when, on repeating my examination, I found the os entirely dilatible, but there was nothing approaching uterine action. Suffice it to say, that after waiting as long as I deemed consistent with the safety of the child (having, in the mean time, given ergot freely, but without the effect of arousing the uterus to further expulsive effort), I passed the hand into the vagina, and hooking the finger in the groin, made traction on the child. This manipulation excited some degree of contraction, and in the course of half an hour the hips were through the vulva. The progress of the child, however, seemed to depend altogether on the traction, the uterus merely following it down. By the time the umbilicus of the child was extruded, I found that life was extinct—there being no pulsation in the cord. The shoulders were slow in rotating and passing through the vulva, and when at last the whole body was extruded, I found that the head, which was very large and well ossified, was detained at the superior strait by the forehead impinging firmly on the linea-ilio-pectinea. The work of remedying this evil, by pushing the occiput up and pulling the forehead down, was quickly done, but the child was stillborn.

Finding now that the uterus was contracting imperfectly, and that blood was flowing pretty freely, I passed my hand in and withdrew the placenta. I found it lying loosely in the os uteri, and it came away very readily, its delivery being followed by a free gush of blood. Friction and cold applications over the uterine region, however, brought on a sufficient degree of contraction to place the patient beyond danger. The child was very large indeed. I could not procure scales to weigh it, but I am sure it would have weighed ten pounds.

I have never seen a case more strikingly illustrative of the worse than ignorance of what are usually termed “midwives”—old women who pursue the business of attending their sister women in labor as an actual trade. Here is a woman taken in labor with her first child ; there being a “breech presentation,” the first stage of labor progresses slowly ; the

midwife (a woman of enlarged experience, and consequently very learned in the business), becoming tired of waiting on the operations of nature, and being perfectly ignorant of the cause of the delay, ruptures the membranes prematurely, and brings all the force of the uterus down on a child which cannot possibly escape, because the os uteri is not yet sufficiently dilated for even the hips to pass through. But after the membranes have been ruptured, there is "an interval of repose;" nature has been much fatigued with her efforts in the first stage, and she stops by the wayside to rest. But this is all wrong, says the wise midwife, and I am in a hurry to get home; I will *help* her. Ergot is poured down, and soon nature is aroused from her slumber; and then come uterine contractions "worse than anything they had ever seen." In two hours the uterus is worn out by ineffectual efforts to expel its contents, the midwife can do no more, and the doctor is called in. A few questions put to the midwife not only prove that she has been meddling with the case, but that she is ignorant in the extreme. She not only did not know a rigid and undilated os uteri when she felt it, but absolutely mistook the breech of the child for the head.



TWO CASES OF ACUTE PNEUMONIA, PRESENTING THE COINCIDENCE OF FIBROUS CONCRETIONS, OR COAGULA OF THE HEART.

Reported by NUMA LAMBERT, Ward Student to Thos. Peniston, M. D., Prof. Clinical Medicine, etc.,
New Orleans School of Medicine.

CASE 1. Dec. 10th, 1856, Joshua Meadows entered Ward 13, Charity Hospital. He is a native of Illinois, 18 years of age, laborer, twenty-four hours in New Orleans. Recently from Memphis, Tennessee. Temperament sanguine. Health has been good until within a few months, during which time he has suffered from pain in the right side, occasional cough, and shortness of breath, for which he has not been treated. Has been actually *sick* for eight days past; was taken, on board of a steamboat coming down to the city, with vomiting and cough; had no chill; had severe pain in the chest. Says that the matter he now expectorates began soon after the appearance of the cough. Has continued to cough up to the present moment. Says that the pains have occupied principally the

right side of the chest. When he entered the hospital yesterday, the house surgeon ordered cups and a blister, 6 x 6, to be applied to seat of pain, and the following medicines :

R.—Antimon. et potass. tart., gr. j.

Syrup simplicis, ℥vj.—m

Take a tablespoonful every three hours.

R.—Infus. ulmi, oj. To be taken as a drink.

R.—Hydrarg. chlorid. mit., g., xij. Divid. in twelve powders, one every hour.

Present Symptoms.—General typhoid expression—cheeks flushed—skin dry—pulse 106—respiration 38 to 40—slight icteric tinge of the conjunctiva—brick-dust expectoration, not very tenacious.

Percussion.—Dulness over the whole of the right lung; hypertrophy of the liver and spleen; dulness of sound, extending an inch and a half below the border of false ribs, with tenderness on pressure, particularly towards the median line below the xyphoid cartilage.

Auscultation.—Plural friction sound heard very distinctly in the anterior and lateral portion of the right lung during the inspiration. No crepitant rale distinguished. Tubular blowing in the anterior portion of the lung and the infra clavicular and mammary regions.

Prescription.—Cups No. X to anterior portion of right lung.

R.—Syrupi morphiae sulphat—syrupi balsam. tolutani, of each ℥iv.

Antimon. et potass. tart, gr. vj.—m.

Tablespoonful every hour. If he vomits freely, diminish the dose one-half.

R.—Infus. ulmi, oj. To be repeated, if necessary.

Warm poultices after the application of cups.

Death at 5 o'clock, P. M.

Post-mortem examination, sixteen hours after death.—No emaciation; slight icteric tinge; muscular development fine. On opening the chest, by removal of sternum, intimate adhesion is found to exist between the pleura costalis and pleura pulmonalis, with thick, semi-organized false membrane covering the whole of the pleura of right lung. On removal of right lung, which seems compressed by the wall of the thorax, the whole of the right lung is found completely hepatized—sinks in water. On cutting it, no fluid issues from its parenchyma. The mucous membrane of the bronchi is inflamed, with false membranes in the smaller bronchi. False membrane also existing at the base of the lung, uniting it intimately

with the diaphragm, and fully an eighth of an inch thick. Between the lobes is deposited a quantity of gelatinous substance, resembling intimately the appearance presented by the buffy coat of blood in acute inflammation. No softening of the tissue proper of the lung. On tearing it, it presents a granulated appearance.

Left Lung.—A few slight adhesions only existing in its anterior and inferior portion. The pleura of the lung injected, of a bright arterial red. Substance of the lung healthy throughout.

Heart.—Slight effusion of an ounce or so of liquid in the pericardium. Organ slightly hypertrophied. On removal, by section, of the large vessels, a semi-gelatiniform mass, or coagulum, is found extending a considerable distance up the vena cava ascendens, and down through the tricuspid valve into the right ventricle, where its lower end has taken root between the fleshy columns of the valve, where it is much more firm and intimately adherent to the surface of the heart and the fleshy columns of the valve. Otherwise nothing abnormal.

Abdominal Organs.—Considerable hypertrophy of the liver, with evident traces of inflammation and adhesion to the lower border of the diaphragm; spleen also enlarged to twice its normal size.

CASE 2.—December 20, 1856, Thomas Kinsley entered Ward 13, Charity Hospital. Patient is a native of Ireland, 19 years of age. Has been generally healthy; has had an attack of hepatitis; never had yellow fever, though exposed to several epidemics. Was taken sick nine weeks since with chills, severe cold, difficulty of breathing, and almost complete extinction of voice, accompanied with the characteristic damson sputa of pneumonia. These symptoms were accompanied with dryness of the skin; patient says *he could not sweat*. No bowel complaint; has had occasional palpitation of the heart; is addicted to drinking; has taken no medicines at all.

Present State.—General development fine; constitution good; extinction of the voice continues, patient being able only to speak in a whisper. Skin soft and warm; flushed cheeks; pulse 108 to 110, and hard; tongue dry in the centre; gums spongy; percussion good in anterior portion of left lung; auscultation reveals nothing but slight roughness anteriorly in left lung.

Sounds of the heart masked, it being covered in great part by the left lung. Marked dulness on percussion from the upper limit of the mam-

mary region of right side down to base of lung, extending from the median line in front around to the infra-axillary region.

Posteriorly.—Sound good down to the point of the scapula, slight dullness thence to the base of the lung. Respiration accompanied from the point above indicated (point of the scapula) with crepitant and subcrepitant rales. Subcrepitant rale and slight tubular breathing existing at the superior limit of the mammary region, gradually changing into the crepitant rale as the base of the lung is approached. The intensity of these sounds diminishes on approaching the summit of the lung.

Prescription: venesection, $\mathfrak{z}\text{xvj}$, this morning, $\mathfrak{z}\text{xvij}$ to be taken also at four o'clock this evening, if the artery does not lose its volume. Otherwise, apply cups No. XII in the region indicated. Large emollient poultices after cups.

R.—Hydrargr. chlorid. mit.....	gr. xx.
Pulv. ipecac. et opii.....	$\mathfrak{z}\text{ss}$.
“ scilla marit.....	gr. x— \mathfrak{M}
Divid. in chart., No. XX. One to be taken every three hours.	
R.—Infusi lini.....	oj.
Ant. et pot. tartr.....	gr. vj— \mathfrak{M} .
To be taken as a drink.	

December 22d.—Patient says he feels better; passed a good night; pulse 120; the artery has lost in part its hardness, though still rolling under the finger. The flushing of the cheeks continues; skin is soft and moist; tongue still dry; thirst continues intense; patient has no difficulty of breathing. Slight subsultus tendinum in the muscles of the arms and neck. Slight delirium last evening. Expectations have lost almost all trace of blood, becoming flocculent, presenting the character of pus and mucus. Sounds of heart much more distinct this morning. Patient moves himself with facility in bed. Persistence of the tubular breathing in region indicated anteriorly; tubular blowing also heard posteriorly.

Prescription: Continue powders, continue drink.

R.—Emplastr. cantharid., 6 x 8, to right subclavicular region. Cups, No. 6, to posterior portion of right lung.

December 23.—Cough has measurably disappeared; expectoration much less abundant, has become mucous; pulse 110; artery more compressible; general appearance about the same; cheeks slightly flushed; skin rather dryer than it was yesterday; tongue dry and a little red at the point; lips still dry.

No difficulty of breathing. Bowels regular. Urinates freely. Slight icteric tinge of the conjunctiva. Slight subsultus of the muscles of the

arms and neck. Tubular breathing still continues in the regions indicated, anteriorly and posteriorly. Extinction of voice continues about the same. Sounds of the heart much duller than they were yesterday—scarcely perceptible—inducing the idea of fibrous concretions in right side of do.—Patient desires food.

Prescription : continue treatment.

December 24th.—Patient says that he feels pretty well this morning. Expectoration in small quantity—mucous. No difficulty of breathing. General appearance of patient pale, skin moist particularly on forehead. Cough slight. Still slight subsultus of the superior extremities. Pulse 96. Tongue moist and red at the point. Slight delirium in the early part of the night. Respiration 30 to 32. Tubular breathing the same. The extinction of voice is diminishing.

Prescription : continue powders.

R. Liquor. ammon. acetatis, and a little weak brandy toddy.

December 25th.—Pulse 120, and filiform. Skin in profuse perspiration. Breathing laborious. Tongue moist. Patient complains of not being able to sleep. Extinction of voice more decided this morning. Expectoration mucous. Some delirium at night.

Prescription : continue medicine as yesterday. Patient died in the afternoon.

December 36th.—Post mortem examination sixteen hours after death.

Intimate adhesion between the pleura costalis and pleura pulmonalis of the right lung anteriorly, from its summit to its base, with thickening of both leaves of the pleura. Intimate adhesion also between the base of the lung and the upper surface of the diaphragm. The lung completely hepatized anteriorly, except a very small portion at its extreme summit, which is still permeable to air and not even engorged. The upper half presents a homogeneous softened mass of a grayish, ashy color, readily giving way to the least pressure. As you descend towards the base of the lung, the color changes into the characteristic red hepatization peculiar to the second period of pneumonia.

Posteriorly, the external surface of the lung from its summit to within a short distance of its base, partially hepatized. Slight adhesions between the pleura at different points, more particularly towards the most depending part of the organ. The lung being removed and immersed in a bucket of water, readily sinks to within a short distance of its summit, being there upheld by the small portion of healthy lung substance.

Heart.—The heart is almost entirely covered by the left lung. The pericardium is found distended with semi-purulent serum, to the amount of six or eight ounces. On opening freely this membrane, the heart is found covered with a deposition of soft, flocculent granular substance which is readily removed with the finger. Some traces also of chronic inflammation are made manifest by patches of organized false membrane of ancient date. Excentric hypertrophy of the right heart, more particularly, however, of the right auricle, the walls of which are thin and flabby. Considerable hypertrophy, also of the ascending vena cava. On opening the right ventricle, a semi-organized coagulum is found, the roots of which are firmly implanted around the columnæ carnæ of the tricuspid valves, extending up through the valves into the superior vena cava, becoming softer on approaching the last mentioned vessel; the same adventitious substance is also found in the left heart, implanted around the columnæ of the mitral valve, and extending upwards through it; in this side of the heart however, its consistence is much less firm than that found in the right heart.

Observations.—The presence of coagula in the heart anterior to death, and their mode of production has not escaped the attention of pathologists. Bouillaud, in his work on the diseases of this organ, remarks, that in the heart, as in the arteries, and, above all, in the veins, coagula take place under purely physical or mechanical conditions, obstructing the flow of the blood, or, again, by causes acting *chemically* on the *liquid flesh* itself. In the first instance, the concretion does not materially differ from that which presides over the coagulation of the blood after it has been withdrawn from the vessel—which mechanism, be it said, *en passant*, is not yet exactly known. If, a short time previous to death, or in disease of the valves and orifices offering a serious impediment to the circulation, blood is drawn, it will flow out of the vein much thickened and semi-concreted. It is at this moment that concretions take place in the cavities of the heart, and it is to their formation that we are to attribute many of those cases of sudden death. Any acute phlegmasia, accompanied with violent febrile reaction, and in which the blood drawn presents a fine white buff, which is firm, elastic and resisting, constitutes a predisposition to certain fibrinous concretions of the heart, all of which bear a close resemblance to the inflammatory buff.

Whatever, then, may be the other causes giving rise to these adventitious formations, and which are so suddenly fatal, it is certain that pneumonia

presents, *par excellence*, these conditions. By what means are we to diagnose these formations, and what are the remedies to be applied? Laennec, whose penetration they did not escape, informs us that the sudden occurrence of irregularity and confusion in the normal sounds of the heart, hitherto regular, together with dullness of the valvular sound, extreme anxiety and dyspnœa, make up the principal symptoms. It was through them that we were enabled, in the case of Thomas Kinsley, to diagnose their existence, nearly twenty-four hours before death. Other authors also mention the fullness of the jugular vein, with occasional pulsations in that vessel, denoting distension of the right cavity of the heart with blood. The latter fluid being hyperinotic in the highest degree—the fibrin ranges from 6 to 13 per thousand.

We cannot, in the present state of our science, offer any prompt or efficient means for the relief of this alarming coincidence in pneumonia, but must await the progress of pathological research on the modifications brought about in the nature of that fluid of life so aptly termed by Bouillaud, *the liquid flesh*.

Since the above was written, I have had occasion to observe the formation of concretions very similar in color and consistence, in the sheaths of the tendons of the hand, occurring in a case of acute articular rheumatism; they were small, ovoid coagula, about the size of a plum-seed, of a pale, fleshy color, smooth, and susceptible of being displaced. On a section being made, they offered no concentric layers, but were homogeneous throughout. In this case no coagula were found in the heart.



SPECIAL SELECTIONS.

ON THE EFFECT OF CHLOROFORM UPON THE RESULT OF SURGICAL OPERATIONS.

By JAMES R. NOTT, M. D.

(Concluded from last number.)¹

If the above tables required confirmation, a reference might be made to other statistical statements, which, though the numbers constituting them are too small to have much weight by themselves, may be usefully considered in conjunction with others having a more extended basis. Of this

kind are the tables respecting etherization, that were published four years ago in America (*American Journal of Medical Science* for 1852), and certain notices which we have received of the surgery of the Crimean campaign. It is generally understood that the results of amputations were unfavorable during this war; and, though there were several other causes in operation, there can be now no doubt that this want of success may in some degree be attributed to the use of chloroform. Dr. Gordon, who had medical charge of the Second Division of the army, (in which, however, chloroform was not so much used as in the other divisions), informs us (see the "Report of the Proceedings of the Crimean Medical Society") that the result of amputations was very favorable in the preceding war in India, and before etherization was in use. Of twelve amputations performed in his regiment during the Punjab campaign only one proved fatal.

Allusion may also be made to a report of amputations performed under etherization, which was published in the *Medical Gazette* some years ago by Dr. Snow; and as its purpose was very different from recommending caution in the administration of chloroform, it may be here referred to; although under other circumstances the fact of its being a private unauthenticated report would, in such an inquiry as the present, render it inadmissible. Betrayed, apparently, by Dr. Simpson's erroneously high estimate of the mortality in British Hospitals before etherization was introduced, Dr. Snow did not hesitate to publish this report, in which the mortality from 55 amputations of the thigh, leg, and arm, amounts to 27 per cent., as a statement favorable to etherization. But when it is considered that none of the amputations in this list were primary, that, at the commencement of the practice there was more selection of cases than has since obtained, and that several of them occurred in private practice—circumstances all highly favorable to recovery—the mortality from them must be deemed quite as high as that indicated by the reports in the *Medical Times and Gazette*. Dr. Snow says he publishes this report in order to dispel the fears with which some surgeons may be troubled; as well might a recruiting sergeant encourage to enlistment by enumerating our losses at the Redan.

Although I have not, for certain reasons assigned above, made so accurate an examination of the statistics of the results of amputation in the provinces as in London, I have ascertained that they show an equal, if not a greater, comparative increase of mortality. This operation at some of the largest provincial Hospitals did not formerly prove fatal to 15 in 100;

the average mortality for the last two years and nine months (the whole period embraced by the returns) is 30 in 100.

I am perfectly aware that the inferences drawn from these tables and numerical statements will not be acceptable to many members of the profession who have been using chloroform in every important operation; but I am unable to anticipate any valid objection that can be made to them. The point that was supposed established by Dr. Simpson's investigations, it must at once be acknowledged, is not so established; and, although there may be a difference of opinion regarding the exact correctness of the estimate in my first table of the mortality in the London Hospitals before etherization was in use, this is a point of no importance. The great question is, not whether my table makes this estimate two or three per cent. higher or lower than it ought to be, but whether the mortality from amputation in the London Hospitals, after all the improvement of late times, would have amounted steadily during the last three years to more than 30 per cent. or about a third of those operated upon, but for the continued agency of chloroform? If it be asserted that the mortality of the London Hospitals has not increased, then it must follow that the returns we have had of the results of operations in former years have been most erroneous; that the long-boasted superior salubrity of the London over the Paris Hospitals was not authorized by the truth; and that our surgeons, though well aware of the comparatively trifling mortality after amputation in the country or in well-ventilated Hospitals, whither most of the patients might have been sent, recklessly persisted in this fearful sacrifice of life.

But (it may be argued), admitting that a great increase of mortality has been proved by these tables to have existed during the last three years, it is not a necessary consequence that this has been caused by chloroform. If any other cause has been acting, let it be pointed out. There has been none which could have effected this difference through so long a period, but the introduction of chloroform. Other influences may, doubtless, have occasionally acted in unison with it, and increased the mischief; but to a continued cause alone can the continued increase of mortality be attributed. We know that chloroform is a powerful agent, and that it possesses noxious properties; the ulterior effects of which, as well as the immediate, would have been sooner discovered but for the mists raised by erroneous statistics, and the bold, unqualified assertions of its innocuousness by parties whose opportunities of observation gave an authority to their opinions. It would be no satisfactory explanation of the cause of this mortality to al-

lege, that inflammation of the veins, or pus in the blood, has been epidemic or prevalent. We wish to know what caused this prevalence. An epidemic caused by atmospherical or other similar influences does not last for many years over the whole extent of a country; but this epidemic has been co-existent with, and has, doubtless, sprung from chloroform. Much of the misapprehension existing on this point has arisen from a forgetfulness of the distinction between predisposing and exciting causes. Intemperance (to take, as an example, a predisposing cause, closely allied to, if not identical with, intoxication from chloroform), is not the immediate or peculiar cause of yellow fever or cholera; but the consequences of drunkenness, and particularly the debility or prostration produced by it, render the human frame a prey to exciting causes which its conservative powers would otherwise have enabled it to resist. We know that the majority of diseases prove fatal by some modification of inflammation and its consequences; and that there are a hundred remote and immediate causes of inflammation. Nothing, therefore, could be more erroneous, if any particular inflammation became prevalent, as of the brain, or blood-vessels, in consequence of the prevalence of some particular predisposing cause, than to say, that this cause had nothing to do with the fatality. Chloroform probably acts injuriously as hemorrhage acts, or by the debility which it produces. The plan for producing general anæsthesia by excessive bleeding, proposed about thirty years ago by Mr. Wardrop, would have often proved fatal from the same cause (a).

The time comprehended in these statistics is three years, and the locality, London. Such a period and field of observation are amply sufficient to

(a) Dangerous as this plan was, it was better received than what may be termed the first systematic proposal of etherization. I allude to Dr. Hickman's suggestion of producing anæsthesia by the inhalation of carbonic acid gas, which was published twenty years before the subject was taken up in America. We may judge from the following extract from an abusive criticism of it in the *Lancet* for February, 1826, how great the change is which has come over our opinions on this subject: "Does Dr. Hickman suppose, that he would not be laughed to scorn, if he were to recommend a man who was about to have a tooth drawn, to be previously hanged, drowned or smothered for a few minutes, in order that he may feel no pain during the operation?" When speaking of the introduction of etherization, I may remark, that no scientific truth in connection with this measure has exerted a more important influence than the great practical discovery by Whately, alluded to in my essay on Therapeutical Inquiry, that, in cases of suspended animation from narcotism, life may be preserved by long continued artificial respiration. But for this resource, the deaths, numerous as they are, which have occurred from intoxicating or narcotic inhalations, would have been ten-fold. Mr. Whately, of Berkhamstead, lately saved a child in imminent danger from chloroform, by respiration, effected in the manner recommended by Ricord, or "bouche à bouche."

determine the question ; but if more be required, let the records of other periods and other hospitals be examined, and the same result will appear. The report by Dr. Snow, for instance, was published six or seven years ago. In extending this inquiry, let care be taken that the return shall be from various hospitals of similar character, that they comprise the requisite number of similar cases, and be sufficiently authenticated. And let it be remembered, that if the effect of chloroform administered in healthier hospitals than those of London be investigated, we cannot expect the same proportion between its injurious effects. A patient might inhale chloroform in a pure country atmosphere and escape, who would be killed by it under the contrary circumstances ; just as, according to common observation, a person may, if other circumstances be the same, be bled with impunity in the country who would sink under venesection in London.

Before concluding the subject of amputation, I may remark that, of the two kinds of this operation termed primary and secondary, the latter is the best adapted for a subject of comparison in respect to etherization. The first not only varies more in danger, according to the severity of the injury rendering it necessary ; but the question of the propriety of having recourse to primary amputation in certain kinds of injury is far from being yet settled. If the surgeon were invariably to cut off limbs which another and a better surgeon would endeavor to save (and this observation applies to both primary and secondary amputations), he would soon be enabled to exhibit a much more favorable return of amputations than the usual average ; and the adoption of such a system at any particular Hospital would give it a fallacious appearance of advantage over others.

These observations respecting primary amputation apply with equal force to the operation for strangulated hernia. The mortality from this operation is affected principally by the length of time that has elapsed from the date of the strangulation ; and if a surgeon were always to operate immediately on its occurrence his success would be much above the usual average. He would not, however, diminish the mortality from the disease by so rash a proceeding, for assuredly the greater number of strangulated hernia can be reduced without any dangerous incision, and the several novel modes of effecting this, which I have at different times recommended, particularly that of suddenly contracting the bulk of the protruding part by a short application of intense cold, will still further diminish the necessity for resorting to the knife. I may observe, with respect to the use of chloroform in herniotomy, that from the smallness of the wound it pro-

bably causes little increase of danger. In most minor operations, indeed, the principal danger to be apprehended from its use, is that of sudden death from its primary effects. If I may be allowed to judge of the matter from general impressions (for I have not as yet applied the test of careful statistics) I should be disposed to attribute the mischief from the secondary effects of chloroform principally to its predisposing to pyæmia; but unless in certain parts of the body, small operations involving the incision of only small blood-vessels are rarely the cause of this affection.

Although amputation has been generally selected as the operation for comparison in similar inquiries to the present, it is not the best adapted for the purpose. No operation has undergone or is undergoing greater changes and improvements. The substitution of the ligature of arteries for the hot iron, of the double for the single incision, of union by the first instead of the second intention, of heating for cooling dressings, were all great improvements; but, perhaps, none of these will effect so favorable an agency on the result of the operation, as the plan of regulating the temperature of amputation-wounds, and excluding the air from them, lately adopted in Germany by Langenbeck. Changes of this magnitude render such a comparison as that which engages our attention difficult; and if the practice recommended by Langenbeck prove as successful in other hands as, he assures us, it has proved in his own, a comparison of this kind will very soon be no longer possible (b). It is very different as respects the operation of lithotomy, which has, unhappily, remained nearly stationary for a whole century. The slow and painless dilatation of the neck of the bladder by the pressure of a fluid, which was suggested more than twenty years ago, has rarely been properly executed; and Surgeons have judged of the proposal more by these imperfect trials than by the principles of the operation. In consequence, however, of this stationary condition of lithotomy, the average mortality from no other operation has been so well determined by statistics; and, on this account, it is unnecessary to enter into any such detail on the subject as that which was required with reference to amputation. In young persons, or while the parts about the

(b) There is an allusion to this improvement at page 28 of the account which I lately published of the recent improvements on the treatment of stricture; and I may here state, that the modification of the current apparatus, called the "water muff," which I recommended ten years ago for regulating the temperature of wounds, diseased joints, etc., is well adapted for congealing a limb previously to amputation. The frigorific solution may either be made to flow over the skin in immediate contact with it, or a thin membrane may be interposed.

neck of the bladder remain easily distensible, the fatality of lithotomy is comparatively little; and there is, perhaps, as much difference between youth and age, in this respect as between amputation of the thigh and forearm. The deaths from lithotomy in adult patients before the introduction of chloroform were, according to our best authorities on the subject, in the proportion of 1 to $4\frac{1}{2}$, or 22 per cent. of those operated upon. What they are now, will appear by the following tables:—

TABLE IV.

Showing the Mortality from Lithotomy performed on the adult and under Chloroform in the London Hospitals during the last year, from July, 1855, to June, 1856.

Hospitals.	Cases.	Deaths.
St. Bartholomew's.....	1	0
Guy's.....	3	2
St. Thomas's.....	2	1
London.....	1	1
St. George's.....	2	1
University College.....	2	1
King's College.....	3	2
St. Mary's.....	2	1
Metropolitan.....	1	0

Total cases, 17; deaths, 9; percentage of deaths, 52.9.

TABLE V.

Showing the Mortality from Lithotomy performed on Adults (c) in the London Hospitals during the last Three Years.

	Cases.	Deaths.
First Year.....	10	7
Second Year.....	14	6
Third Year.....	17	9
Total.....	41	22

Average percentage of deaths, 53.6.

The fact that, instead of one in four operations proving fatal, the mortality should now be doubled, and amount to one half of those cut for stone, is so remarkable as to render any comment unnecessary.

I must now bring these observations to a close. Desirous to be as brief

(c) I am not aware that more than one death from the direct effects of chloroform has been reported as occurring in the London hospitals, but the following notice in the statistical return in connection with one of these cases at Guy's Hospital nearly amounts to such a report: "The man required an unusual quantity of chloroform. He never rallied well from the operation, and death took place next day."

as possible, I have excluded every statement or reflection not essential to the exposition of the subject. To dispel the delusion that we have sufficient evidence that chloroform saves life, it was only necessary to point out the fallacies in Dr. Simpson's two tables ; and to show the present greatly increased rate of mortality from amputations, it was enough to place before the reader the results of those performed in the London Hospitals. That such an increase of mortality was likely to proceed from the administration of chloroform, will not now be denied by any one who dispassionately reflects on the palpable evidence of its poisonous nature and debilitating agency afforded by the sudden deaths, and the lasting prostration so often occasioned by it.

If the truth of this exposure be called in question, on the plea that it is improbable that so great and pernicious a delusion should have existed so long, it is a sufficient answer to say, that until a considerable time had elapsed, and the test of statistics could be properly applied, there was no possibility of detecting it. Chloroform, like the foul air of crowded hospitals, is a secret poisoner, its pernicious effects are rarely cognizable by any peculiar mark ; and a reliance on individual experience cannot but lead to the most erroneous conclusions. The light which statistics have thrown on this important question, is only one of the great services they would render practical medicine, if carefully and judiciously employed, and brought, through the assistance of Government, to bear on those collections of facts preserved in the medical records of the hospitals of the country.

That the exposition now made will put a stop to the indiscriminate use of chloroform in operations, is not to be expected ; for whatever the opinions of surgeons may be respecting it, or whatever danger may attend its use, patients will now insist upon its being employed, until a perfect substitute can be found. As well might we look for a cessation in the abuse of alcohol, the dangerous anæsthetic for mental pain. But it will be the duty of the surgeon, instead of urging the administration of chloroform as a means of saving life as well as of preventing pain, to represent to the patient about to submit to amputation or lithotomy, that the endurance of a moderate degree of pain (for by the substitution of local anæsthesia, the pain need never be more than moderate) is a far less evil than to have the hazard of the operation increased to so frightful an extent as to be fatal in three instead of four or five amputations, as formerly, and to render recovery or death after lithotomy, an equal chance.

But it is not necessary that the argument of an increase of the unfavora-

ble results of operations should be insisted upon. Supposing there were no such increase, if there be no sufficient proof of a decrease of these results, as a compensation for the numerous deaths which proceed from the direct and immediate effects of chloroform, the recommendation of its use, especially in the large doses employed of late years, could hardly be justified.



ON THE EARLY PERFORMANCE OF TRACHEOTOMY IN CROUP.

By G. M. JONES, Esq., Surgeon to the Jersey Hospital.

The successful result of an operation leads us naturally to recommend its adoption in other cases in which identity of character exists. To propose an operation is one thing, but to induce others to follow in our footsteps requires something more, we must be able to show its utility, probably its absolute necessity, and that the well-being, oftentimes the very existence, of our patient depends on its performance. To hear some speak of tracheotomy in croup would almost lead us to imagine that the operation is a new one, a mere experiment and the offspring of some enthusiastic innovator (a). It would be foreign to my purpose to prove the contrary, my present object being to endeavor to persuade its contemners that they may be in error, and to show that if resorted to in time, it may be the means, the only means left us to preserve the life of a fellow-creature, the greatest and the most heartfelt wish a medical man can experience.

It is not the favorable result just given the history of (b), which leads

(a) Although croup, as a distinct disease, and tracheotomy, as one of the means employed for its cure, have only been brought conspicuously into notice within the last years, both are undoubtedly of ancient date. The quinsy described by Hippocrates as existing "without any evident tumor in the neck or fauces, but attended with violent strangulation or difficult respiration, and which proves fatal either on the first or third day," and the cynanche of the Greeks, stated to be "a contraction of the orifice of the asperia arteria, by which not only the voice is suppressed, but respiration is performed with difficulty, and sometimes wholly stopped, often in so short a time as to kill the patient in twenty-four hours, or the third day," is the same affection which we now designate as "croup;" and the following passage, also to be met with in one of the earlier writers, unquestionably proves that tracheotomy was then one of the established methods of cure in cases of "cynanche trachealis." But if, in a quinsy, after the use of proper medicines and repeated evacuations of blood from different veins, there is still a necessity for making an incision in the trachea, in order to prevent suffocation, the operation may be performed in three different manners," etc.

(b) Vide *Medical Times and Gazette*, Oct. 4.

me to speak highly of the operation. I have long been impressed with its propriety, and only waited an opportunity to judge for myself—but even had my views at any time been different, or had my case terminated fatally, the success which has attended M. Trousseau's endeavors, and which deservedly entitle him to be looked upon as the first French authority on this subject, and the unwearied exertions of my friend Mr. Henry Smith, of London, which place him on the same level as his Parisian competitor, would certainly have shaken, or altered altogether my views, even had they before been opposed to operative interference.

It may reasonably be asked—Why is tracheotomy in croup so little resorted to in England? Why, to make use of a homely phrase, is it at such a discount? The reason is easily explained—we have the prejudices of parents to overcome—the opinion of some of the highest authorities to oppose—and the ill success which has almost invariably attended its performance to account for in such a manner, as to show that death has possibly arisen, more from neglect or inattention to other important points, than to the operation itself, or to any effect it may have produced on the human economy.

It is by no means surprising, that parents, particularly in the low grades of life, object to submit their child to an operation, the nature of which they will naturally make inquiries about, and which when explained, conveys a degree of horror to their minds, only surpassed by the reply given to their second question—its probable result in the present instance, and the amount of success which has attended it in others. The conscientious Surgeon cannot promise a certain cure, a circumstance not to be overcome by the ignorant—precious time is lost, till at last a tardy acquiescence, at times an earnest entreaty to do any thing which may offer a chance of saving the sufferer is given; but then the last stage of the disease has already set in, the operation is performed, and is almost immediately, or in a few hours followed by death. As a natural consequence the operator has all the odium, and the disease for which it was performed, and which Dr. West very justly says, “is unquestionably one of the most dangerous to which childhood is liable,” is forgotten. But if we have this to contend with among the lower orders, the surgeon has equal difficulties, equal unfavorable chances of success among the superior classes of society; he has “the opinion of some of the highest authorities to oppose;” and if called in by them, or by those who adhere to their views, he comes as the “forlorn hope,” oftentimes as the “last witness to expiring life;” this brings me to the

most important point of my subject, "the endeavor to persuade its contemporaries that they may be in error."

Many authors of indisputably high reputation, whose works are constantly consulted, and whose views and treatment respecting the nature and cure of disease are the beacons by which thousands are guided in their line of practice, speak of tracheotomy in croup in a manner which, to say the least, offers but little encouragement to its performance. I shall quote the words of a few of the most eminent on the subject: "When signs of approaching death have come on, lividity of the lips, coldness of the skin, and a tendency to stupor, the question *will* obtrude itself, whether there may not still be a chance of saving the patient by tracheotomy. In the first place, the operation is much more difficult to execute upon children, than upon adults, and is attended with more perplexing hemorrhage; but a greater objection is the existence of the preternatural membrane, which precludes air being admitted into the lungs. Tracheotomy has again and again been practised in this complaint to no purpose, and I should be inclined to look upon it as absolutely hopeless, but for two instances recorded in the *Medico-Chirurgical Transactions*." (c) "Whenever tracheotomy is performed, it should be after every other remedy has failed, and not before any other has been attempted, as the exudation extends through the ramifications of the trachea, and probably through the lungs, there is but little hope, after all, of any benefit from such an operation." (d.) "There does not appear to be a chance of success from this operation in in any case wherein the treatment developed above has failed. * * I perfectly agree with Goelis, Cheyne and many others, in concluding that it should seldom or never be attempted in this disease." (e.) "In England the result of almost every instance of the performance of tracheotomy in croup has been so unfavorable that the operation is scarcely looked upon as a justifiable proceeding." (f.) Such, then, are the opinions propounded by some of the most weighty of English authorities.

Under such circumstances, can it be a matter of astonishment that few general practitioners are willing to attempt an operation, the result of which is likely to bring discredit on themselves? Now let me ask, from what cause or causes combined is this operation so generally followed by

(c) Dr. Watson's Lectures on the Practice of Physic.

(d) Dr. Mason Good's Study of Medicine.

(e) Dr. Copland's Dictionary of Practical Medicine.

(f) Dr. West on the Diseases of Infancy and Childhood.

fatal consequences? I have no hesitation in stating that a contrary result might, in all probability, ensue, if the trachea were opened, not "when signs of approaching death have come on," nor "when every other remedy has failed," but at much earlier stage of the disease—in a word, before all hope of the efficacy of medicine has ceased altogether. Better to expunge the operation of tracheotomy in cynanche trachealis from all works on practical surgery, than perform it under circumstances which, from the weakened and exhausted state of the patient, must render an operation much less formidable than this one—an accelerator of death, and not the means by which death may be averted. Why are the statistical returns in cases of strangulated hernia more favorable now than formerly? is it not from operative measures being resorted to before symptoms of approaching dissolution manifest themselves? and in what light would the advice of a surgeon be looked on now, were he to recommend us to wait till repeated vomiting of fecal matter took place before subjecting his patient to herniotomy? Whatever theories may have been broached, whatever views medical men may have taken of the causes and other circumstances connected with croup, there exists, I believe, among the most experienced almost, if not altogether, unanimity of opinion that blood-letting, antimony, calomel and warm baths, are the means we are called upon, first of all, to employ in this dangerous disease. I have too often had recourse to them, and others as their adjuncts, not to add my humble testimony to their efficacy; and, happily, many cases will yield to their judicious employment, but that all the remedies recommended are to be carried out *seriatim*, and some tried a second and even a third time, as a matter of course, before resorting to tracheotomy, appears to me the point which high authorities ought to employ their pen in condemning, rather than dwell on the fatality of an operation, possibly occasioned, in very many instances, from too systematically following out the plan recommended by writers.

Are there not diseases in which we can safely pronounce our patients better, although the symptoms continue stationary for a time? This is exemplified in several forms of fever; and, on the other hand, we meet with complaints in which a stationary state must be regarded as most unfavorable, and croup can be brought forward as an illustration. For instance, we are called on at an early hour to attend a child laboring under a severe form of this disease, in the evening we find our patient possibly not worse, but in no respect better. Are we, then, to rest satisfied in imagining that, although we have not gained, still we have not lost ground?

If we think so, we deceive ourselves ; for a whole day we have been unwearied in our exertions, we have exhausted all the means medical science has placed at our disposal, and with no better result than having been able to keep symptoms stationary, and that in an affection which not unfrequently runs its fatal course in eighteen, twenty-four, or thirty-six hours. Can a repetition of already tried remedies bring on an improved condition ? I do not mean to state this can never happen, but I feel confident practical men will bear me out when I say that, in a vast majority of cases, the absence of any improvement after steadily pursuing for twelve or sixteen hours the medical course most approved of, leaves but very slender hopes that a continuation in a similar line of practice will be crowned with success.

I have already spoken of the improved statistical returns in cases of strangulated hernia, and the probable reason why they are so satisfactory. Those who have attentively watched the progress of surgery must admit that it yearly makes rapid strides towards perfection ; and it appears to me that there is, in many respects, a striking resemblance between hernia and croup, not only as far as regards symptoms, but also with respect to the indications of cure. In hernia we have strangulation of the bowels to overcome, in croup, obstruction to the passage of air to remove ; both diseases may come on suddenly, and without premonitory symptoms ; in each the most prompt and energetic treatment is required ; both are fraught with the greatest danger to life ; each runs its course rapidly ; the same delay which may prove fatal in one case becomes equally so in the other, and the discriminating judgment which tells the surgeon when it might be hazardous to delay operative interference, guides, or ought to guide, the physician in recommending surgical means to supersede, for a time, those he has zealously, though unsuccessfully employed.

Is the operation a dangerous one ? This is a question not easily solved : some authorities say that it is, others are of a contrary opinion (g), and when this is the case, I know of no better rule to follow than this : not allow ourselves to operate solely under the latter impression, or be intimidated by the former ; to hope the one, and be at the same time fully prepared for any casualty which may supervene. But that which must ever make

(g) Casserius pronounces, "those men unskilful, cowardly, and even cruel, who foolishly neglect this operation, which is often safe in itself, and attended with the most speedy and salutary effects, and who suffer their patients to die for want of this proper and seasonable assistance."

tracheotomy in croup dangerous, is, the performing it when symptoms of dissolution are at hand. Blood lost then is assuredly "life's blood," and if this operation is at any time attended with "perplexing hemorrhage," what effect must even the loss of the most trifling quantity produce on the dying; almost as well may we operate on the dead subject in the hope of seeing returning life, as on the expiring with the expectation of witnessing recovery.

In recommending an earlier performance of tracheotomy in croup than is practised in England or advocated by British writers, I am far from advising it to supersede other measures (compatible with existing symptoms). It is said that in France there are many instances in which this operation has been performed on patients whose disease would probably have been amenable to other treatment, and cases are mentioned in which none of any description had been tried before. This practice is not advisable, for there is no operation, however trivial it may appear, which can be positively pronounced as free of ulterior danger, and consequently none ought ever to be performed unless really necessary; thus it appears that in France, surgeons often operate earlier than is required, while in England they almost invariably do so too late. The observations I have made are intended to induce practitioners to adopt a middle course, that is, to be neither too hasty nor tardy, but to be guided in a case of croup as they would in a case of strangulated hernia.

The success this operation has been attended with, in France, is most encouraging; but there is another reason, besides operating earlier than we do, which undoubtedly gives our continental brethren an immense vantage ground over us. There croup presents a different character to that which it exhibits in England; with us it is certainly a much more dangerous complaint. This difference arises, in a great measure, if not altogether, from the parts more materially implicated. "In France, croupal symptoms are induced, in the majority of cases, by the extension to the larynx of false membrane, originally deposited on the fauces and left palate, while the wind-pipe itself is comparatively seldom in a state of active inflammation, often altogether unaffected; and the bronchitis and pneumonia, which in this country so often, and so seriously complicate the disease, are of less common occurrence" (h). But it appears to me, that it is this very difference in type which ought to lead us to effect an exchange of treatment. In England, the symptoms brought on by croup are

(h) Dr. West on the Diseases of Infancy and Childhood.

not unfrequently more dangerous than the original disease, to wit, bronchitis and lung affections will follow; but not often precede cynanche trachealis. Both these formidable affections are in a greater measure, if not altogether, dependent on an obstruction to the passage of air; so that, in overcoming this as quickly as possible, we prevent congestion, and thus have to grapple with one, instead of three separate diseases.

My views are so much in harmony with those expressed by Mr. Smith in his valuable paper in the *Medical Times and Gazette*, of the 26th January, 1856 (i), that I feel more confidence in stating my conviction that—notwithstanding the difference both in the nature and the type of croup in this country, and the more formidable character it puts on than is generally met with in France—our earlier introduction of air would not only give us a larger percentage of recoveries, but would place this operation in the same favorable light in which it is now regarded in Paris and other parts of France (j). Success would enable us to speak with more confidence as to a favorable result in those cases to which we are called early, so that the prejudices of the ignorant would be more easily overcome, and the surgeon be found at the bedside of the opulent, not as at present, when all other remedies have failed, and when death is at hand, but at a time when there is still strength enough and hope enough left, to lead to as reasonable a prospect of recovery from tracheotomy, as was before held out by each of the remedies which had already preceded its performance.

HARVEIAN SOCIETY, Nov. 20, 1856.

Dr. MARSHALL HALL read the following paper on the *Asphyxia of Still-born Infants, and its Treatment*.

The newly-born infant and the newly-born of many of the mammalia are in a peculiar condition, both in an anatomical and physiological point of view.

(i) I cannot too strongly recommend the perusal of this valuable paper to those who are interested in the treatment of this dangerous disease. Mr. Smith, with that characteristic candor which speaks volumes in his favor, is not backward in acknowledging his own failures, while he points out the success of another in proof of the desirableness of this operation.

(j) "In certain European countries, and in England particularly, tracheotomy in cases of croup is still so isolated an operation, that in all Great Britain it is not so much practised as in Paris alone."—*Lectures on Tracheotomy in Croup, by Prof. Trousseau.*

The foramen ovale and the ductus arteriosus being still open,* the blood of the pulmonary circulation is still diverted from the channels it is destined to pursue, and in this respect it resembles the reptile tribes.

Respiration, and every stimulus, *except temperature*, being absent, the excitability of the spinal system and the irritability of the muscular system exist in their highest condition, according to a law of animal life which I announced some years ago—viz., that these faculties are, throughout the animal kingdom, *inversely as the stimuli*.

The new-born foetus is therefore a creature of high excitability and irritability. But such an animal bears the absence of stimuli precisely in the same ratio. Respiration is the chief of these stimuli; therefore, to arrive at the subject of this paper, the new-born foetus can long survive the absence of respiration.

The condition of apnoea and of asphyxia, without the absolute loss of life, is therefore of long duration, and the hope of restoring the still-born infant is long protracted; so must therefore our efforts at resuscitation be.

[*Note.*—I must here briefly advert to the well known question of Harvey,† and the not less famous experiment of Buffon, leaving them to your meditation. Harvey asks why the infant which has never breathed bears the suspension of respiration longer than the infant which has once respired?‡ Buffon had the idea that if the foetus of the class mammalia was born under water, and respiration prevented, the foramen ovale and ductus arteriosus would be prevented from closing, and that in this manner life might be protracted under water. A chimera! For what respiration would there be if both placental and aërial respiration were excluded? But life does not exist without respiration.]

These efforts consist—

1st, In measures to induce efficient respiration; and

2d, In measures to maintain the circulation.

In order that respiration may be effected, we must adopt the following means:

* This patent condition of the foramen ovale and ductus arteriosus continues, according to the researches of M. Flourens, during eighteen months of extra uterine life in the human species.—*Histoire de la Découverte de la Circulation*, p. 67, 69.

† *Exercitatio Anatomica Secunda de Circulatione Sanguinis*, Gulielmi Harveii, p. 258. Glascuæ, 1751.

‡ “Cur foetus in utero, non respirans aerem, usque ad mensem decimum ob defectum respirationis non suffocatur? Cur natus in septimo, vel octavo, quam primum aerem inspiraverit, inhibita postmodum respiratione, ob defectum aeris suffocatur?”

1st, The infant must be placed in the prone position, in order that all fluids, which might obstruct the entrance into the windpipe, may flow away.

2d, Nature's mode of operation being to impress the trifacial and cutaneous nerves, the external *excitors* of respiration, by the external cold, we must dash a few drops of cold water on the face and the general surface.

3d, We must proceed, having failed to *excite* respiration, to *imitate* the respiratory movements.

This must not be done by *any forcing* means; even the human breath, forced into the infant's lips, *tear* the delicate tissue of the foetal lungs. We must, on the contrary, adopt some measure of *drawing* the air into the lungs. This is effectually accomplished by first placing the little patient briskly in the prone position, to clear the fauces; then pressing gently on the back; and then removing that pressure, and turning it gently on the side and a little beyond.

4th, Meantime, the limbs are to be rubbed, with gentle pressure, upwards, to promote the circulation, by propelling the venous blood towards the heart.

5th, At proper intervals, we must again endeavor to *excite* the respiration physiologically.

The infant is to be placed with the face prone, and douched alternately and rapidly with water of the temperatures of 60° and 100° Fahr.

High and low temperatures are equally excitants of the reflex function of respiration, and their power, within physiological limits, is in proportion to the difference of those temperatures.

We must remember that the newly-born infant is a creature of high irritability and low stimulus, and that the foramen ovale and ductus arteriosus are open—both events greatly calculated to protract life and hope in the case of apnoea; and we must long, very long, *persevere* in our efforts to save the still-born.

The still-born infant has been restored after it has been neglected for hours!

There is a remaining consideration. The effect of apnoea is a condition of the blood surcharged with, and poisoned by, carbonic acid: from this condition of the blood a secondary asphyxia and convulsions are apt to occur in the adult. I do not know whether this be the case with the newly-born infant; I trust our worthy President will enlighten us on this and other points in regard to the subject of this paper.

The *remedy* and preventive of such secondary asphyxia would be, free exposure to the breeze, with the inhalation of very dilute pure ammonia.

The treatment of the still-born infant may finally be thus briefly resumed in the form of RULES :

1st, Place the fœtus on the face ;

2d, Sprinkle the general surface briskly with *cold* water.

3d, Make gentle pressure on the back ; remove it, and turn the infant on the side ; and again place it prone with pressure.

4th, Rub the limbs with gentle pressure, *upwards*.

5th, Repeat the sprinkling, only now, with cold and hot water (of the temperature of 60° and 100° Fahr.) alternately.

6th, Continue these measures, or renew them, from time to time, even for hours. The embers of life may not be entirely extinct.

“ LATEAT SCINTILLULA FORSAN.”

EDITORIAL AND MISCELLANEOUS.

“THE FREE DISPENSARY OF THE NEW ORLEANS SCHOOL OF MEDICINE.—We have already spoken of the liberal patronage bestowed on the New Orleans School of Medicine, in this, its first lecture term. Its first class now numbers *seventy-two*, and we are quite willing that the list should end here, so far as comparison with any other new school in the land goes. Of course much of the success is to be attributed to the disposition evinced by the Faculty of the Institution to *improve* the system of medical teaching. They set out by increasing the number of professors in the institution, and thus, by dividing the labor, insuring that the student shall receive for his money all that they promise him. They lengthened the lecture term one month, in order that the student may have time to digest what he sees and hears ; and they adopted a system of *daily* clinical instruction—instruction at the *bed-side*—by means of which the student is enabled to watch most carefully the progress of disease in all its forms.

These efforts to improve the existing system of medical teaching have met with the hearty approval of our Southern students of medicine, as

well as that of physicians throughout the land. But the faculty are not satisfied to stop here; they propose to go on improving, until their institution shall stand unsurpassed, if not unrivalled. They have now opened a *Free Dispensary* for the indigent sick and lying-in women, where advice and medicine will be furnished gratuitously on stated days of each week. In New Orleans, the word Dispensary is something new. Indeed, it may be said to be new in all Southern cities. It therefore behooves us to tell what the objects of the institution are—what is to be gained by its establishment. These are, threefold—first, as regards the advantages derived by the student of medicine; second, as regards the welfare of the poor sick; and third, as regards the interest of the State in a pecuniary point of view. Experience at the North has proven clearly, that there is a large class of cases which may be treated at the Dispensary with far more advantages to the student of medicine. Of this class we may mention, all minor surgical operations which do not require the patient to take his bed; the large class of skin diseases; various chronic affections; recent cases of venereal disease; most of the diseases of children, etc., etc. By the concentration of these cases at the dispensary on stated days, the student is not only enabled to see disease in variety, but he is required to make diagnosis, write prescriptions, apply dressings, and compound and dispense medicines. But if all this is useful to the student, there is still another point of more importance than all others. By the establishment of a lying-in department, the student is enabled to attend the parturient woman entrusted to his care, at her own house, where all his duties may be performed with the most comfort to his patient, and the greatest degree of instruction to himself.

Again, experience in our Northern cities has clearly proven that a large class of the indigent sick can be more comfortably and satisfactorily taken care of at dispensaries than in hospitals. A large number of these people are not sick enough to go to bed, or, if they are, they would much prefer to lie down at home. The husband, if not very sick, would prefer to stay at home and be nursed by his wife, rather than go into the wards of an hospital. He may be able to walk to the dispensary once or twice a week for his prescription, or he may be visited by the advanced student of medicine after having once made his appearance at the dispensary. It is in the very nature of things, most unfortunate for the mother of a family to have to give up her home, husband and children, to take up her abode in the hospital, and more especially is this true of the parturient woman.

She must first enter the hospital in anticipation of the coming event; this may be a term of one, two, or three weeks; and then she must lie indefinitely after her accouchement. In the meantime her home, husband and children, are suffering for her attentions. Again, dispensaries are peculiarly useful to sick children. All physicians who attend hospitals know, that however advantageous they may be to adults, they are not proper places for little children, if they can possibly receive proper attention in any other way. Experience proves (and this is but the dictate of human nature) that parents will part with anything sooner than with their children. If the laboring man is able to pay a doctor at all, he will pay him to attend his sick child; but it is too often the case that he is unable, and therefore does not call him in; the child is prescribed for by all the kind neighbors around, and either dies for want of proper attention, or, if taken to the hospital at last, it is only when it is too late to do good. The dispensary, then, is the proper resort for women (especially lying-in women) and children, as here they can receive prompt and efficient and gratuitous aid. The lying-in woman receives the very best attention; for she is not only assigned to the care of an advanced student of medicine, who is known to be capable of attending to her (and is, therefore, far superior to the female midwife), but in case of any difficulty whatsoever occurring in the case, the Professor of Obstetrics in the New Orleans School of Medicine is bound to give prompt assistance. So that, in reality, the indigent parturient female who places herself under the care of this dispensary, is better off than many women of ample means, who from a sense of false modesty, place themselves and their offspring in the hands of old women midwives, who either do mischief by meddling, or allow mischief irreparable to take place, through total ignorance of the manner of arresting or relieving. The fact is, the advantages offered the sick by a dispensary are incalculable, and a volume might be written on the subject.

As for the intimate relation existing between the establishment of this dispensary, and the pecuniary interests of the community, and even of the whole State, any unprejudiced eye is bound to see it at a glance. Wherever dispensaries have been established the communities have found it the cheapest possible mode of taking care of the sick. Not only are more lives saved to the community (death being the chief item of expense, when viewed in a proper light), but the absolute outlay of money is immensely reduced. The consequence of this is, that in the Northern cities we find free dispensaries for the indigent sick scattered in every direction, and

supported by individual contributions. As an instance of the immense amount of good, that may be done in this way, we mention *en passant*, that the Demilt Dispensary of New York City, (a comparatively new institution) rendered assistance to over 20,000 sick persons during the year 1855,—and this at a cost certainly not exceeding one-fourth the amount expended by our Charity Hospital for its attentions to 15,000 in one year.

We say then, without fear of contradiction, that the faculty of the New Orleans School of Medicine have opened an institution (its Dispensary) which, if treated with that spirit of liberality which is certainly due from an enlightened community, will not only prove of inestimable value to the indigent portion of our community, and consequently to the *whole* community, but will, by ridding the wards of the Charity Hospital of a large number of sick persons who are now forced to take refuge there, relieve the State of a very heavy tax in a pecuniary point of view. The faculty have opened their dispensary for the benefit of their pupils—wishing at the same time to give their mite towards the relief of suffering humanity; but they are sure that neither the people of this State nor of this City will expect them to furnish medicines gratis to *thousands*. One or two thousand dollars per annum thrown into the dispensary in the shape of medicines, will enable them to do more good than has ever before been done in New Orleans with four times the amount of money.

Here, then, is another of the improvements already begun by the Faculty of the New Orleans School of Medicine.

THE CALIFORNIA STATE MEDICAL JOURNAL.—*Case of Complex Labor.—Professional courtesy and etiquette.—Fiat Justitia, ruat cælum.* To the honor of our profession be it said, that although private bickerings and jealousies amongst its members are far too numerous, and seem in the nature of things almost unavoidable, still there is usually found in enlightened communities an "*esprit de corps*," which makes the educated and zealous members of the fraternity shrink from anything like a public exposure of the professional short-comings of their brethren—and more especially of that class usually termed "the young and inexperienced." If there be in a medical man one virtue which outshines all others put together, that virtue is *charity*. Without charity, a man can scarcely be honest, because he is ever unwilling to admit the honesty of purpose or action of his fellow-men. Show us a medical man ever willing

to publicly expose the professional frailties of his brethren, and we will show you a man who is a stranger to charity—a man willing to undermine his neighbor's house, in order to secure a foundation for his own. It is but in the nature of things, that medical men should, amongst themselves, compare the relative abilities and acquirements of their brethren, and, in their private coteries, even criticise the short-comings of individuals; but it is rare indeed, that they are seen before the world revelling in the misfortunes of their brethren, or, hook in hand, trying to drag them from their fair position in society.

These are reflections induced by reading in the October number of the California State Medical Journal, an account of a "Case of Complex Labor," reported to the Sacramento Medical Society, by J. L. Simmons, M. D., October 15th, 1856. We propose to review the whole of the proceedings in this most interesting case as fully as the time before us will allow, and if our ink is at all unpalatable to many of the parties concerned, the fault lies with themselves; we can only say,

"This is true criticism, and you may kiss—
Exactly as you please, or not—the rod,
But if you don't, I'll lay it on, by G—d."

It seems, that on the 29th of September last, Dr. J. L. Simmons, of Sacramento, was called to attend Mrs. ———, in labor. He arrived at 7, A. M. From the attending midwife he learned that the patient had been in labor since 11 o'clock the previous evening, but that she thought no progress had been made since 2, A. M. Physical exploration proved the head of the child to be resting on the perinæum—having passed through the os uteri. In other words, the first stage of labor was complete, and the second considerably advanced. The *general* symptoms of the patient were evidently unfavorable. In Dr. S.'s own words—"The patient seemed much exhausted; pulse quick and more feeble than I expected to find in one of her temperament; pains short and feeble; face congested, and some head symptoms; making me anxious in regard to puerperal convulsions." (We wish the reader to mark well the foregoing train of symptoms.) Dr. S. found the "soft parts firm and unyielding," and ordered a hip bath. Farther examination now detected no progress; "pains were lessening, and exhaustion of the patient more manifest." He now administered two doses of wine of ergot, one drachm each, with an interval of twenty minutes between the doses. "The pains increased in strength and regularity, and in an hour after the first dose, the second stage of labor was completed"—the child was born. He now set

about delivering the placenta; he applied the bandage to the patient, used friction, etc., over the uterine region, and made some traction on the cord, but "without apparent effect." "An hour elapsed, when some flowing was manifest. I now resolved to remove the placenta. Following up the funis, I easily passed my hand into the uterine cavity, and grasping the central portion of the placenta, I endeavored to effect its removal, which I failed to do in consequence of extensive adhesion. Slight contractions were excited by the manipulations. During the day the patient was easy, complaining only of slight tenderness on the left side. Cold friction with ice was continued, and some nourishment administered. Several attempts were made during this time to remove the placenta in the manner directed, and by insinuating my fingers beneath the outer edge, but without effect; the mass seeming firmly attached. Towards the last, contractions were more firm, but no great difficulty experienced in passing the cervix. More flowing was apparent, and attributing the feebleness of contraction to exhausting labor, I resolved to attempt to excite full action by the use of ergot." This remedy was administered. In the meantime, Dr. S. says he met with Dr. Morse, and having described the case to him, he, Dr. M., agreed that the placenta should be detached piecemeal, if it could not be otherwise accomplished. The ergot did not have the desired effect, and Dr. S. undertook the operation of detachment. He detached "about one-third of the mass," when the contractions became stronger and benumbed his fingers. Considerable traction was made on the cord in the meantime, and it at last parted from the placenta. He persevered in the operation of detachment, "until the pressure and numbness became unbearable," and then he sent for Dr. Brown to assist him in the operation. Dr. Brown arrived in a short time, examined the patient, and advised the suspension of manipulations, rest, and opium and acetate of lead, to arrest hemorrhage, if possible. Dr. S. was uneasy, and requested more counsel. Dr. Morse was called in, and arrived about half an hour after Dr. Brown had made his examination. By this time the symptoms of the patient "evinced great prostration. Pulse quick and feeble; anxiety of expression, and coldness of the extremities." Dr. Morse examined the patient, and, on retiring to consult with Drs. S. and B., announced the existence of "laceration transversely of the vagina, on its posterior surface, near its connection with the uterus." Through this he felt the body of the uterus so firmly contracted, that he could not conceive of the placenta being in so firmly contracted a body.

Suffice it now to say, the patient died at 5 o'clock on the 4th October, or between five and six days after Dr. S. was first called to her. An autopsy was performed *twenty hours* (!) after death. The whole posterior cul de sac of the vagina was ruptured. The laceration was transverse, involving more than half of the circumference of the vagina, and the torn edges were ragged and irregular, apparently having undergone semi-sphacelation. The uterus was not ruptured, but within it, and at its fundus, was found about the sixth part of a placenta, a small portion being still adherent.

From all we can gather, the death of the patient under Dr. Simmons' care, seems to have cast a gloom over the community of which she was a member. But this is not all. We are led to infer that there were whisperings of mal-practice, and that he who was so unfortunate as to encounter primarily this terrible case, found his reputation before the tribunal of an uninformed (in a professional point of view) public, who, operated on by passion and the secret influence of enemies, would condemn him without a hearing. He carries his case, then, before the Sacramento Medical Society—gives an honest account of his stewardship, and leaves it with them to decide whether he was guilty of mal-practice or not. This society appoints a committee of five of its members (Drs. Logan, Oatman, Hatch, Proctor and Taylor,) to take testimony in the case and report. The committee take the testimony of all the physicians who were present, (Drs. Simmons, Brown, Morse, Phelan, and Ellis), as well as that of the midwife, (Mrs. Smith), they examine the alcoholic preparation of the soft parts of the patient which were taken from her twenty hours after death, and they make a formal and very able report on the following basis—viz. : "Concluding, at last, that the society from which their power emanated, was not a civil tribunal, but a scientific institution, the committee deemed that they could best subserve the interests of the profession, by testing the merits of the case, so far as the laceration is concerned, *and no further*, according to standard authorities, and the recognized principles of medicine."

Acting under this impulse—an impulse founded on all that is scientific, honorable, just and humane—the committee have made a report which altogether tends to exonerate Dr. Simmons from the charge of having any agency in causing the fatal rupture ; indeed, they go farther, and express the opinion that it is "probable the laceration took place during the interval between 2 and 7 o'clock, A. M.," the hour at which Dr. Simmons first arrived.

In their report, the committee quote authority to show, that laceration of the vagina is a very rare occurrence—happening only once in 2,735 cases (Collins); that it may occur during labor with “no circumstance connected with the labor which could lead us to anticipate it,” (Collins); and that laceration high up in the vagina may occur in skillful hands, without any positive knowledge as to the time it happened, and that no bad symptoms may be developed before the expiration of thirty hours.” (Case Reported by M. Graus, in the *Bulletin de l'Academie Royale de Medicine*, Belgium.) They also show from authority, “that ruptures of the vagina can be produced by the child’s causing too much distension of the walls of the vaginal canal while passing through it: also, that “uterine contraction alone may produce transverse laceration of the vagina.”

Dr. Simmons is, then, acquitted of the charge of mal-practice by really a jury of his professional peers, selected by the medical society of which he is a member. But there now arises a new phase of affairs—one which must cause the eye of the honest and charitable physician to stare, and his cheek to burn with shame, while he reads the damning record of his profession disgraced. Three members of the Sacramento Medical Society have thought proper to protest against the report of the committee, and, to show their professional zeal, we suppose, have even gone further and inserted the same as an appendix to the report of the case and the report of the committee, in the State Medical Journal. We give their protest entire, and take the liberty of analyzing it:

The undersigned members of the Sacramento County Medical Society, would respectfully enter their protest against the adoption of the foregoing Report, for the following reasons:

First.—Because they are of opinion that its incorporation into medical history will exert a bad effect in Medico-Legal and Medico-Moral medicine, through the expressed and implied probability that such a lesion, under such circumstances, should be explained upon the grounds of the operation of natural causes.

Second.—Because, while they are willing to admit the possibility of laceration of the vagina, during the progress of parturition, they are not willing to concede to the foregoing case the application of any probability of that kind.

Third.—They do not consider the cases referred to in the Report, as sufficiently analogous to sustain the general conjecture of the committee.

Fourth.—They cannot convince themselves that such an extensive laceration could exist for twelve or fifteen hours, without greater constitutional disturbance, nor can they conceive, if it were so, how such a length of time could elapse during which a retained placenta led to

frequent manipulations with and without chloroform, and the lesion itself not discovered during said period, even with an inexperienced practitioner.

Fifth.—They do not think that the evidence embraced in the Report is all that could be adduced having an important bearing on the case—e. g., the inexperience of the attending physician.

For these leading considerations, they believe it to be their duty to protest against the case referred to being received as a case which might be subsequently cited in palliation of the most obvious and aggravated mal-practice.

JAMES BLAKE, M. D., F. R. C. S.,
JOHN F. MORSE, M. D.,
T. M. MORTON, M. D.

SACRAMENTO, November 28, 1856.

That the gentlemen who have signed this protest will find it most difficult to convince their brethren abroad of their exceeding zeal for keeping the pages of medical history unsullied in a "Medico-Legal," and more especially in a "Medico-Moral" point of view, we here venture to predict. We have said before, that *charity* is a necessary ingredient in the composition of a physician; the protest says loudly that they are strangers to charity, and the consequence is as inevitable as it must be unpalatable to them. But they do not see "that such a lesion under such circumstances, should be explained upon the grounds of the operation of natural causes." How different things appear when viewed through different media! Now we never heard of Dr. Simmons, nor of Drs. Blake, (F.R. C.S.), Morse and Morton, before in our lives; yet, with the whole history of this unfortunate case before us, we see *all the probabilities* of the accident having happened to the patient before Dr. Simmons reached her at 7, A. M., of the 29th September. When Dr. S. first saw the patient, she seemed "much exhausted; pulse quick and more feeble than I expected to find in one of her temperament; pains short and feeble; face congested, and some head symptoms, making me anxious in regard to puerperal convulsions." The patient was taken in labor at 11 o'clock the previous evening, but no progress had been made since 2, A. M.; consequently she had been in labor only *eight* hours, and during the last *five* hours the contractions had been inefficient and no progress had been made. Does so little labor as is here shown to have occurred, ever, *per se*, produce the symptoms which Dr. S. enumerates as existing in his patient when he first saw her—a woman, too, who had previously been in good health? On the contrary, would not any practitioner of *experience* have at once, on the strength of such symptoms and the previous history of the woman, sus-

pected some grave complication? We feel sure that the reply of the majority of our brethren will be, *no*, to the first question, and, *yes*, to the last. At any rate, Dr. Simmons has the strength of our humble voice so far.

Did the ergot which Dr. S. gave at first produce the laceration by increasing the contractile or expulsive efforts of the uterus? No one can answer this question *positively*, either *pro* or *con*. That it *did not* have this injurious effect we think in the *highest degree probable*. In the first place, the dose was small, and repeated but once at full interval: the U. S. Dispensatory says, that the dose of wine of ergot for a woman in labor is "two or three fluidrachms," whereas Dr. S. gave but *one* fluidrachm at a dose. Again, Dr. S. tells us, that after the exhibition of the ergot the pains increased in strength and regularity, and in an hour after the first dose the second stage of labor was completed. He nowhere tells us that the pains which expelled the child were at all *excessive*. The only error that we can conceive of in his giving the ergot, was that he gave it when he says, himself, that the soft parts were "firm and unyielding." Yet he says that this was the case before he gave the hip bath, and as he does not tell us whether the soft parts relaxed under the action of the bath, he leaves room for the *uncharitable* to say that they did not. For ourselves, we are more willing to suppose that they did relax, and that he therefore gave the ergot.

Did Dr. Simmons rupture the vagina of his patient by any rude manipulation whatever? We say emphatically, *no*. There is not the slightest evidence, expressed or implied, which can lead to such a conclusion. Moreover, we do not believe that an accoucheur could possibly inflict such an injury on a woman, after the extrusion of the child, without causing her such suffering as would induce the loudest complaints and make the act on his part palpable to all in attendance. Such an idea, then, should be summarily dismissed.

We say, then, that the "first" point in the protest under consideration falls to the ground. The report of the committee shows by the best of authority that rupture of the vagina *can* occur from the "operation of natural causes," and there are no "circumstances" to prove that Dr. S. had any agency whatever in producing the "lesion;" on the contrary, everything goes to show that it occurred before he saw the patient.

The "second" point of the protest requires no comment. It is but a repetition of the first, the language being so construed as to prove most clearly a spirit of obstinacy and a total want of charity on the part of the protesters.

The "third" point exhibits a spirit of arrogance and dogmatism which must disgust every man who is possessed of ordinary modesty. "They do not consider the cases referred to in the Report, as sufficiently analogous to sustain the general conjectures of the committee!!" And yet not one word in the way of argument or explanation will they deign to favor us with. Surely it is not necessary that the cases cited by the committee should be analogous to the case of Dr. Simmons in all their details. The committee set out with the object of proving certain important points in relation to laceration of the vagina; they have proved them beyond all caviling; in so doing, the case of Dr. Simmons becomes comparative, and the comparison redounds to his advantage *in toto*.

The "fourth" point of the protesters is, that "*they cannot convince themselves that such an extensive laceration could exist for twelve or fifteen hours without greater constitutional disturbance,*" nor can they believe that even "an inexperienced practitioner" could have manipulated after the occurrence of the lesion without detecting it!! As for the first part of this point, if the committee had adduced *fifty* cases, instead of two, to show the falsity of their position, they could not be "convinced." "He who is convinced against his will, is of the same opinion still." The second part of the point needs but a few words. We believe the fact has been long conceded, that difficulty in *diagnosis* is the great stumbling block of the inexperienced. Tell a young practitioner what the disease is, and he can generally tell you what to do for it, but he can by no means so readily make a diagnosis. We have known the inexperienced young physician to touch the child in utero, and yet not know what part he touched—aye, we have known the *experienced* physician to commit the same blunder. Who, if he has anything like free intercourse with his brethren, does not almost daily see errors in diagnosis? Yet is every man who commits an error, or who fails to detect that which is at once palpable to his brother practitioner, to be set down as an ass? Does not the lawyer commit errors? Does not the builder do the same thing? Aye, cannot even the mathematician? Then would it have been anything *impossible* for even an *experienced* accoucheur to have passed his hand into the vagina of the patient in question, and thence into a uterus the mouth of which was open, without immediately detecting the rent in the vagina? For our own part, we see nothing surprising in this part of Dr. Simmons' conduct, nothing for which he should be branded by his brethren. If any advantage to the patient could have resulted from his detecting the lesion at an

early date, then might the friends of the deceased have had some cause for complaint. As it was, the autopsy proved he was right in diagnosing adherent placenta; this had to be removed, and in directing his attention to this point he overlooked the more serious complication under which his patient was laboring, yet one which was *irremediable*.

As for the "fifth" point in the protest it is simply *puerile*, to say the least of it. The protesters do not think "that the evidence embraced in the Report is all that could be adduced having an important bearing on the case—*e. g.*, the inexperience of the attending physician." In the name of all that is just and honest, if they had any other "evidence" which could be adduced to the disadvantage (as they might think) of Dr. S., why did they not come out with it like men, and not, by this species of inuendo, heap suspicion on the head of their fellow-man? If they think it legitimate or liberal in them to carry the investigation farther than all the other members of the Sacramento Medical Society deemed it should be carried, then should they have frankly proclaimed the "evidence," so that their fellow-man might at least have had the opportunity of refuting it. But no, "Dead scandals form good subjects for dissection," and these buckram champions in the cause of "*Medico-Moral Medicine*" prefer to record a damning insinuation.

But the worst feature in this whole affair now comes. Appended to all that we have been discussing, in this same October number of the *California State Medical Journal*, is a long review of the whole of the proceedings connected with this most unfortunate case. With a single exception (and in that instance the editor's conduct was condemned by all good men), we do not know of a precedent on which to base the propriety of the simultaneous publication of an article and a review of it. Such an act is contrary to the usages of journalism, contrary to etiquette, and in the highest degree illiberal. It looks like an attempt to forestall public opinion, and to rivet the chains of persecution which have already been wantonly cast around the legs of a fellow-man. If such be the course of conduct which the *California State Medical Journal* has marked out for itself, its career will be short and its reputation unenviable.

But if the publication of the review in the same number of the journal be unfair, what will our readers think when we tell them that the review is *anonymous*; the man who wrote it is without a name; or, if he has one, he is either ashamed of it, or afraid to record it. The zealous friend of "*Medico-Moral Medicine*"—the self-sacrificing conservator of the suffer-

ing people, and with a face most sanctimonious in its every lineament, he drapes his shoulders with the hallowed garb of "*Celsus*," and, stealing his poisoned dagger from beneath its sacred folds, plunges it into the back of a youthful and unfortunate fellow-man.

"Oh for a forty-parson power, to chant
Thy praise, hypocrisy!"

And oh for the dust from good old *Celsus*' feet, to cast into the reviewer's throat, and choke his words as he cries for mercy!

Has it come to this, that men who arrogate to themselves the great charm of being *experienced* practitioners of medicine, shall be allowed quietly to damn the reputation and future happiness of their fellow-man, by urging, as *evidence* of his having been guilty of "most obvious and aggravated malpractice," that he is *inexperienced*? Is this *charity*? Is this *liberality*? Or, rather, is it not hypocritical impudence, and an unmitigated insult to all the better feelings which emanate from the bosom of man? Have these three gentlemen forgotten that *they themselves* were once young and *inexperienced*? Who is the *natural friend* of the young practitioner of medicine? Who does he often look to, both through the medium of books and in person, to help him when in doubt and difficulty? 'Tis the man of *experience*. Not merely men of gray hairs, the evidences of whose knowledge shine only on the surface of their pates; but men who have profitably exercised that complicated organ contained within their crania. One smile on the *experienced* man's face causes the young aspirant's heart to leap with joy, and one word of approval spoken behind his back brings peace and gladness to his little fireside; while a chilly frown, or dark insinuation, drives even hope from his habitation. Then who would not sooner smile than frown? Who would not sooner approve than insinuate?

A few words more, and we have done. We are not in the habit of indulging in lengthened reviews, as such is not the province of our journal; we generally express our opinions of books, etc., in as few words as possible, always endeavoring to be fair in our aims, even if we choose strong language. We are sure our patrons will not think so many pages of this number ill appropriated when they see our reasons.

1st, We have seen a fellow medical man with his reputation and his future welfare in the rude scale of public opinion, and this scale being turned against him by the powerful yet silent blast of insinuation and suspicion; we think our humble voice may at least cheer him in his misfortunes, and we have spoken loudly for him.

2d, We have seen a professional brother most directly charged with being guilty of "the most obvious and aggravated malpractice;" we believe him to be most truly *innocent*, and we have said so.

3d, We have witnessed in the conduct of the "protesters" that which we believe to be a gross violation of professional etiquette towards a professional brother—viz., the public record of their protest, after a committee of their own society had acquitted him of the grave charge heaped upon him; and we think it our duty as journalists to say so.

4th, We think it unbecoming the dignity of, and most highly illiberal in a medical man, to say aught which may tend to injure his professional brother without making his name so plainly known, that the injured party may fully avail himself of it in making his defence.

5th, We think it unprofessional and uncharitable for the older members of our profession to urge the *want of experience* in their younger brethren as *evidence*, either of their inability to take care of the sick, or their greater tendency to inflict injury.

PHILADELPHIA MEDICAL AND SURGICAL JOURNAL.—In our December number, we made the following quotation from the Philadelphia Medical and Surgical Journal, and commented on it :

"*The Medical World*.—Our old and amiable friend, Dr. J. V. C. Smith, formerly of the world-renowned Boston Medical and Surgical Journal comes down on his *hunters* with a ludicrous vengeance, and demolishes the foremost of the pack with an easy sang froid, quite refreshing. The fight is a pretty one, and we predict that many hard words will be bandied before it is over. Orthodoxy, in the minds of many, sits very loosely on the shoulders of the editors of the Medical World; for our own part we are disposed to be merely "a looker on in Vienna," and in the conviction that "truth is mighty and will prevail" let the world wag its own way."

Now, so far as the position of the Philadelphia Medical and Surgical Journal is concerned, we are quite willing to let it stand on the merits or demerits of its own language above quoted. If it is satisfied, we are. But the late January number of this Journal, "comes down on us with a ludicrous vengeance," which we would quote entire, if we had not far better use for our pages.

In our December number, we confessed that we were somewhat puzzled by the remarks of the Philadelphia Medical and Surgical Journal. Its

own language asserted that Dr. J. V. C. Smith is its "old and amiable friend;" its own language declares that Dr. Smith "demolishes the foremost of the pack with an easy sang froid;" and its own language says that this "easy sang froid" is "quite refreshing."

We are in exchange with nearly all the medical journals in this country; the majority of them have noticed the receipt of one or more numbers of the Medical World, and some of them have noticed its attacks on one or more editors of medical journals; but all of them frown on the Medical World, and not one of them, save the Philadelphia Medical and Surgical Journal, acknowledges its editor as an "old and amiable friend," or expresses itself as "refreshed" by reading the scurrilous articles it contains.

Under the circumstances, we were somewhat staggered by the language of the Philadelphia Medical and Surgical Journal, and felt (as we now feel) that we had a right to ask it to explain itself,—in other words, to say distinctly whether it was "fish, flesh or fowl." At the same time, we went a little further, and said, that it certainly looked "fishy," and its association, in point of friendship, was "decidedly foul."

In the January Number of the Philadelphia Medical and Surgical Journal, just received, we find ourselves taken to task and so decently (!) abused, that we almost imagined ourselves in the Philadelphia fish market. But this is all nothing, except that it looks as if the editor of this journal believes that we intended to direct an insult at him. If so, he is mistaken. We were only surprised at the position he had assumed, and we were anxious that a journal with which we are in exchange, should stand on unquestionable ground—and this has been in a great measure accomplished; by the time its next number comes out, it will be "all right," barring the decent abuse. It now openly avows that it "abjures his (Dr. Smith's) *principles* in toto," and as the "*principles*" of a man make him what he is, whether for good or evil, we have no doubt that it no longer claims him as an "old and amiable friend." At least we will be charitable enough to take this for granted.

The Philadelphia Medical and Surgical Journal calls us "smart," and speaks of us as "young professors" and "young editors." As for the first named compliment, we merely allude to it in a delicate way—confessing that it has touched our vanity. The latter compliment we could dwell on at considerable length if our space permitted it. If there is anything we are proud of, it is that we are "young professors" and "young editors," (more especially as we are thought to be "smart"), and the only regret we

have about the matter is, that, like an exchange, we may some day become *superannuated*.

BOZEMAL'S OPERATION FOR VESICO-VAGINAL FISTULA.—Mr. Baker Brown, of St. Mary's Hospital, London, reports a case of vesico-vaginal fistula cured by the button suture operation, "devised by Dr. Bozeman, of Alabama, in America." The operation was entirely successful, and "Mr. Brown observed that this method of operation had convinced him that cases hitherto intractable to treatment would be found to be curable by this operation."

EFFECTS OF CHLOROFORM ON UTERINE CONTRACTIONS.—In the January number of the *North American Medico-Chirurgical Review*, we find some very interesting remarks from the pen of Prof. Jno. Hardin on the subject of "Transverse Presentations of the Fœtus." The following, however, has attracted our especial attention, both on account of its importance and its being altogether contrary to our own experience. While treating of remedies to be resorted to for the purpose of relaxing the uterus before undertaking version, the author says—"Fortunately, modern investigation has brought to our knowledge a remedy, prompt, efficient, and so nearly safe that we do not hesitate to employ it in preference to all others. This remedy, I need scarcely say, is chloroform, used to the extent of producing as full and complete anæsthesia as would be required for amputating a limb. It holds the uterine action in complete abeyance, so that we may calmly and considerably employ any mode of changing the presentation of the child that we may desire."

Now, we are fully aware that the author does not stand alone in thus believing in the power that chloroform possesses over the contractility of the uterine muscular fibre. Even Simpson himself, the father of "chloroform in midwifery," speaks of the deep state of anæsthesia suspending uterine action, or even causing relaxation of the organ. If it be true, that the organ can be made thus safely to relax its hold on the fœtus while we perform version, either cephalic or podalic, then are we surely possessed of a remedy which robs "cross births" of half their terror. Whether all this is true or not we will not now say, preferring to await a little more experience on the subject. Thus far, however (and we claim *some* experience in such matters), we have never met with a case wherein even the most complete state of anæsthesia has done more than delay the *recurrence*

of the *expulsive* efforts of the uterus : whenever our hand has been introduced under such circumstances, we have found the normal tonic contractions of the organ on the child altogether unaffected. In other words, our own observation teaches us, that under the state of complete anæsthesia the womb is closely applied to the ovoid form of the foetus, and that any effort to perform version arouses the organ as fully as in a case where no chloroform has been administered.

NOVEL TREATMENT FOR UTERINE HEMORRHAGES.—In the January number of the North American *Medico-Chirurgical Review* we notice quite an interesting article on this subject by M. Dupierris, Havana, Cuba. Dr. D. recommends the injection of the uterine cavity with a solution of iodine—one part iodine and two parts water—the injection to be repeated, if necessary, at the end of three or four days. He says he has resorted to the treatment “more than a hundred times, and found but one case to resist it.” He also cites cases to prove the innocuousness of the remedy.

A NAVAL MEDICAL BOARD IN NEW ORLEANS.—A Naval Medical Board will be convened in New Orleans, on Monday, March 16, 1857, for the examination of candidates for admission to the medical corps of the navy. Gentlemen desiring permission to present themselves before the Board, will address their applications to the Hon. Secretary of the Navy, stating their age and place of residence, and accompanied by respectable testimonials of moral character. The application of no one will be considered whose age is under twenty-one or over twenty-five. No allowance made for the expenses of persons undergoing these examinations, as they are indispensable pre-requisites to appointment.

An examination of candidates for promotion in the medical corps will be held in Philadelphia about the same date.—*Daily Paper*.

Well, surely the world will come to an end next. A Naval Medical Board in New Orleans!! Is it possible that we have at last found a Secretary of the Navy honest enough, impartial enough, aye, *bold* enough, to order a board of medical examiners to convene in this out-of-the-way place, so that Southwestern medical men can have a chance of procuring situations in our navy as assistant surgeons? We read so much in the daily papers, but we can scarcely believe our eyes while we read. We have been so long accustomed to seeing such boards announced to meet in some one of the Northern cities, that we were sure the printer had made a mistake in the name—that it must be New York instead of New Orleans. But all the morning papers have it New Orleans, and it must be so.

Well, let us rejoice over this little taste of the loaves and fishes. The poor young doctor from the Southwest, who could not afford to travel all the way to New York or Philadelphia to stand an examination, the result of which is generally worse than doubtful, may now have a hearing, and be admitted to partake of advantages which properly belong to the whole country. We shall see. In the mean time, why this great mark of respect shown the South?

BURNING OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF LOUISVILLE.—We regret to have to record this sad disaster. Aside from the great inconvenience to which the faculty and students must necessarily be put, the institution has lost greatly by damage and destruction of its museum, library, etc. We are happy to know that their building was covered by insurance, and although it will take time and no small amount of money to replace the articles above alluded to, still we have faith that a few years will set all right again. Our Louisville brethren are working men, and a burning-out or two cannot annihilate their energies. One fire, and the exportation of two professors in a single season, would dishearten some men; but “never say die,” is the rule in “old Kentuck,” and her doctors will flourish, even if they have to furnish the North with professors and build a new college occasionally.

NORTH AMERICAN MEDICO-CHIRURGICAL REVIEW.—We most heartily welcome the first number of this “bi-monthly.” We have been truly sorry to part with our ever-welcome old exchange, the Medical Examiner, and we regretted to see the Louisville Review expire; but if the journal before us is to be the result of the mingling of their ashes, then are we fully consoled. We have no fault to find with the North American, and are disposed to give it all praise. Can we say more? Yes; we bespeak for it the fairest patronage.

A DISTINGUISHED MEDICAL MAN RETIRING.—W. F. H. Montgomery, A. M., M. D., etc., etc., Professor of King and Queen’s College of Physicians, in Ireland, delivered his farewell lecture to his class in the School of Physic, on November 12th ult. It seems that before delivering his farewell address, he delivered six lectures on Embryology, and the theatre was crowded each day with both old and young members of the profession.

Dr. Montgomery has been lecturing on Midwifery for thirty years, and may well retire from his labors.

DR. ARNOTT ON THE EFFECT OF CHLOROFORM ON THE RESULTS OF SURGICAL OPERATIONS.—We finish in this number the observations of Arnott on this interesting subject. Our object in making a "special selection" of these observations, was to enable our readers to see both sides of a very important question, and not because we endorse what the author has said; on the contrary, we believe that his conclusions are erroneous, and we perceive that he has already engaged in controversy with his brethren at home. We are sure that statistics in this country will not sustain him.

BOOKS AND PAMPHLETS RECEIVED.

"THE HISTORY, DIAGNOSIS, AND TREATMENT OF THE FEVERS OF THE UNITED STATES." By ELISHA BARTLETT, M. D., etc., etc. Fourth edition, revised by A. CLARK, M. D., etc. Philadelphia: Blanchard & Lea, 1856.

"MEDICAL NOTES AND REFLECTIONS." By Sir HENRY HOLLAND, Bart., M. D., F. R. S., etc., etc. From the third London edition. Philadelphia: Blanchard & Lea, 1857.

It is not necessary for us to do more than mention that there are new editions of these works; the profession know and value them highly, and they will find their way to every well selected library. They are done up in Blanchard & Lea's best style.

"REPORT ON THE USE AND EFFECT OF APPLICATIONS OF NITRATE OF SILVER TO THE THROAT, IN LOCAL OR GENERAL DISEASE." By HORACE GREEN, M. D., L. L. D., etc., etc. From the Transactions of the American Medical Association. New York: Edward P. Allen, 9 Spruce street, 1856. The same old fiddler playing on the same old string, though in a rather more modest strain. We cannot subscribe to the burning, swabbing and injecting theory and practice yet.

"CONTRIBUTIONS TO PRACTICAL SURGERY." By DANIEL AYRES, M. D., L. L. D., etc. Reprinted from the Journal of Medicine for Jan., 1857. A very interesting pamphlet indeed.

"A DISCOURSE, introductory to a course of Clinical Surgery, delivered at the Amphitheatre of the Louisville City Hospital, Nov. 7th, 1856." By JOSHUA B. FLINT, M. D., Professor, etc.

"REPORT OF THE BOARD OF ADMINISTRATORS OF THE CHARITY HOSPITAL, TO THE LEGISLATURE OF THE STATE OF LOUISIANA. NEW ORLEANS, 1857."

"REPORT OF THE BOARD OF HEALTH TO THE LEGISLATURE OF THE STATE OF LOUISIANA. JANUARY, 1857."

We hereby acknowledge the receipt of these valuable reports. In our next number we will endeavor to give a general analysis of their contents. In the meantime, we look with confidence to our legislature for the warmest support of both its great Charity Hospital and its Quarantine. According to the Report of the Administrators, the Charity Hospital wants pecuniary aid from the Legislature, and we feel sure it will not be denied. The Quarantine is now self-supporting; it has many friends, both in and out of our city, and in our neighboring States, and although herculean efforts will be made by the moneyed few to break it down, still we feel assured that our legislators will not, for that reason, allow a most valuable experiment to be nipped in the very bud—just at the time when it is promising something of good to the whole community. Two years cannot make an experiment; six years should be the shortest term.

LIST OF PAYMENTS, FROM AUGUST 27, 1856, TO JANUARY 25, 1857.—

Dr. P. S. Caffrey, on account of 1856, \$2 50; G. A. Landry, 1856, \$5; J. W. Lilly, 1854, \$3; Dr. Lewis, 1856, \$5; Dr. Edwards, 1856, \$5; John Butts, 1856, \$5; Wm. Reynaud, 1856, \$5; L. Martinez, 1855-6, \$8; W. Y. Gadberry, 1856, \$5; D. S. Bisland, 1855-6, \$8; P. E. Delente, 1856, \$5; O. Anfoux, 1856, \$5; John Morrison, 1856, \$5; H. Y. Bickman, \$5; D. H. Dement, 1854-5-6, \$11; F. Eager, 1856, \$5; G. W. Leatherman, 1856, \$5; C. C. Meredith, 1856, \$5; J. F. Thorpe, 1854-5-6, \$11; D. J. Means, 1856, \$5; Thomas Hunt, 1856, \$5; T. A. Sheppard, 1856, \$5; T. H. L. Smith, 1855-6, \$8; C. F. Chamberlain, balance 1856, \$2; W. L. Shelby, 1856, \$5; Ellis Donnell, 1856, \$5; J. N. Ball, 1855-6, \$5; J. F. Harrington, 1856, \$5; J. S. Brockinton, 1857, \$5; T. E. Vick, 1857, \$5; Elbert Bland, 1857, \$5; C. H. Stone, 1857, \$5; J. Allison Dill, 1856, \$5; L. A. Burgess, 1856, \$5; A. C. Holt, 1856, \$5; R. J. Sterling, 1856, \$5; R. Hagan, 1855-6, \$8, on account of '57, \$2; T. T. Russel, 1856, \$5; J. L. Hornsby, 1856, \$5; Hugh Elliot, 1857, \$5; H. H. Harris, on account of 1857, \$3.

If our friends will be pleased to look over the foregoing list of payments, they will readily perceive that editors are the worst paid laborers in

the world. Only think of our collecting *two hundred and twenty-five dollars* (!) since August 27, 1856. If delinquents will look on this picture, we are sure that they will not only pay that which is long due, but send us the \$5 for 1857 too. To those who have ever paid us up promptly, we return our sincere thanks, and ask a continuance of their kind patronage. Those who still owe us are still under obligations to us for furnishing them a valuable journal.

OUR MORTALITY REPORT.—Owing to unavoidable circumstances, we cannot furnish our regular Mortality Report ; but it will appear in our March number.

EXCERPTA.

PARACENTESIS PERICARDII.—The *Gazette des Hopitaux*, (Paris), of October 18, 1856, contains the relation of a most interesting case in which the pericardium was punctured in a case of hydrops pericardii. This operation, though long considered as unwarrantable, both on account of the uncertainty of diagnosis, and of the dangerous consequences to which it may give rise, may now be considered at times as both possible and useful. The case which we are about to relate, is invested with some interest, from the number and high authority of the consulting physicians who publicly decided as to its expediency. At the request of Mr. Trousseau, all the Physicians of the Hotel Dieu assembled to deliberate on a severe case of pericarditis, accompanied with enormous effusion, which seemed to threaten speedy death, and they were unanimously of opinion that puncture of the pericardium was the only means of averting the impending danger. Thus encouraged, Mr. Trousseau performed paracentesis of the pericardium in the presence of the consulting physicians.

Although the operation was not ultimately successful, on account of unforeseen complications, yet the case presents so many interesting points that we shall present it to our readers as reported by the *Gazette des Hopitaux*.—(Editors.)

A young man, twenty-seven years of age, entered the wards of Mr.

Trousseau, at Hotel Dieu, he said that his disease was of recent origin, he had high fever and all the symptoms and auscultatory signs of capillary bronchitis. He said that for two years he had had some severe pulmonary affection, for which he had taken cod liver oil. A few days afterwards, a close examination of the precordial region, revealed a bellows murmur at the apex of the heart, but the sounds were distinctly audible. He said he had never suffered from rheumatism. Before a week had elapsed, a double *bruit de souffle* was heard at the apex of the heart, and a few days afterwards the second sound of the heart was repeated so as to constitute the *bruit de rappel*, being two sounds in quick succession, like the galloping of a horse heard at a distance. Very soon the dullness increased over the region of the heart to such an extent, that the existence of pericarditis, with serous effusion, now became perfectly manifest. The sounds of the heart became gradually less distinct in proportion, as the liquid increased, until gradually they ceased to be heard. Pulse continued frequent, but regular and full. The patient suffered greatly from that distress and anxiety which are characteristic of heart disease. And these symptoms increased as the effusion became more manifest. The administration of the different remedies, such as calomel, digitalis, purgatives, and blister over the region of the heart, were all of no avail. His face became swollen, the lower extremities were also infiltrated, and the pulse was small and excessively frequent.

In this condition of things, Mr. Trousseau thought that puncture of the pericardium would, perhaps, be necessary, although he still hoped to avoid the operation. But the symptoms soon became so alarming, that further postponement would be fatal; he then summoned in consultation all his colleagues of Hotel Dieu, in order to lay before them those three questions—diagnosis, prognosis, and treatment.

The unanimous opinion of the consulting physicians was, that pericarditis did actually exist, accompanied by an effusion of a liquid which they estimated at about two pints. There was dullness on percussion, from the third rib to the base of the chest, and laterally from near the middle line of the sternum on the right, to about three inches beyond the left nipple. The sounds of the heart were perfectly inaudible. From the distressing state of the patient, his general œdematous condition, and pallid countenance, they judged that death would soon be the result, unless an issue were given to the liquid which thus distended the pericardium.

An operation was therefore deemed essential, and it was consequently

performed without any further delay. Mr. Trousseau adopted the *modus operandi* which was followed two years ago by Mr. Jobert, in a similar case. He opened the chest by means of a bistouri, the incision being made in the centre of the dull region marked out by percussion, a little below the nipple, in the nearest intercostal space. Having carefully cut through the skin and muscles, he next cut through the pleura, and on introducing his finger into the cavity of the chest, he felt the distended pericardium, but the pulsations of the heart could not be distinguished. Mr. Trousseau then cut layer by layer, the remaining tissues, until the point of the bistouri entered the pericardium, and gave issue to a serous liquid of a slightly red color. The incision was then increased about one-third of an inch by means of a grooved canula, giving issue to a jet of the same liquid, of which about two pounds were gathered, besides a large quantity lost in the bed clothes. Several gum elastic sounds were introduced into the pericardium, but no more liquid was thereby obtained; but the patient being then turned on his left side, a yellowish looking liquid came out of the wound, but essentially different from the first. An injection of iodine was next introduced into the cavity, but none of it penetrated into the pericardium, and very little into the pleura.

But, although a very small proportion of the liquid had thus been extracted, the patient felt immediately relieved; the pulse became less frequent and more distinct.

The patient appeared to improve during the course of the day, but at night he was seized with attacks of eclampsia, which were repeated every half hour during the night. The convulsions were limited to the right side. The next day this part of the body was completely paralyzed, together with the tongue. The breathing appeared good; the pulse 160 a minute. A preparation of musk and valerian was ordered. The unfavorable symptoms seemed gradually to diminish, when he died suddenly on the fifth day after the operation.

At the post-mortem examination, a considerable quantity of yellowish liquid was found in the left pleura, exactly similar to that which was evacuated when the patient was put upon his side. The pericardium was somewhat red on its surface, and as large as the head of an adult person. There was no adhesions to the ribs, the upper part alone was covered by a thin portion of the lung, which was intimately adhering to it. Opposite the point in which the puncture had been performed, a purplish spot could

be discerned on the inner surface of the pericardium, showing the passage of the knife. The false membranes which were found around this point were of a red color, as if stained by a recent bloody effusion. When the pericardium was opened, it was found to contain about two pounds of a red-looking liquid, similar to that which had been withdrawn at the first stage of the operation. The heart was situated at the bottom of this cavity, at about two inches from its external surface, at the point where the puncture was made. Both the heart and the internal surface of the pericardium were covered with a thick and reticulated false membrane. The heart was about its normal size, but there was considerable concentric hypertrophy, so that its cavities were much narrower than usual.

We have seen in the relation of the case, that two different kinds of liquid had been obtained from the thoracic cavity, and that by their evident disparity they must have been obtained from different sources. Yet some of the assisting physicians were of opinion that the liquid issued from one sac, and that this was not the pericardium, but the pleuritic cavity. The autopsy proved, as Professor Trousseau had maintained during the operation, that they were obtained from both sources, viz., the first from the pericardium, and the second from the pleura. And yet it was evident that the pericardium had been very incompletely emptied. The reason of this was, that when the bistouri penetrated into the pericardium, through the well grounded fear of wounding the heart, M. Trousseau had made but a small opening in the pericardium. Had he taken the precaution of introducing immediately a gum elastic catheter, this would have secured the complete evacuation of the sac; whereas, as it was, when the cavity of the pericardium was diminished by the issue of a small quantity of liquid, the external incision ceased to be opposite the internal opening, and by that means the further issue of liquid was arrested.

Guided, however, by his experience in the former case, the learned professor thinks, that if ever a case of the *same kind* were to occur to him he would adopt a different course of proceeding. He thinks that the best mode of operating would be to open the pericardium, close the external opening, and let the liquid be emptied into the pleuritic cavity; he is of opinion that this mode of operating would be much safer; that the effusion of a serous liquid into the pleural cavity would give rise to no bad symptoms; and lastly, that the absorption of this liquid by a healthy pleural membrane is known to be exceedingly rapid.—*Translated by A. Peniston, M. D.*

DATURA TATULA.—Dr. Semple exhibited a large specimen of *datura tatula*, from which a powerful extract is derived. The substance stramonium, which is an important article of the *materia medica*, has fallen into comparative disuse, owing to the uncertainty of its operation. This latter circumstance is probably due to the fact that the medicinal extract is obtained from different plants. The common *datura stramonium* of our own country is a humble and insignificant weed, and the extract obtained from it has, perhaps, little power; but that obtained from *datura tatula*, which is a large, tree-like plant, growing in North America, is a substance of undoubted efficacy, and its operation may be generally relied upon.

Dr. Edward Smith then read a paper on the “Nature of Phthisis, and particularly of the Pretubercular Stage.” After pointing out the advantages of special hospitals in the study of diseases, the object of the author was to show, 1st, That the treatment of phthisis, in order to be commonly successful, must be in the pretubercular stage. 2nd, That there is a pretubercular stage, which is capable of easy demonstration, and in which treatment would commonly prevent the deposition of tubercle. And 3d, That the nature of phthisis essentially consists in a lessened inspiratory action of the air-cells of the lung. He admitted that phthisis was induced by a multitude of causes, but he affirmed that the tendency of all those is towards exhaustion, and that they, although many, have one mode of action, in inducing the disease. He criticised minutely the prevalent opinion that phthisis is a disease of blood, and proved that whatever may be the state of the blood in the disease, there is no universal condition of it which attends the origin of the disease, or which is really causative of it. The state of the system, which is one of the causes of phthisis, is one of both solids and fluids, and is to be expressed rather by a general predisposition to the disease than by a specific state of a part of a system, viz., the blood, in which the elements of the disease had never been found, nor had been directly transmitted to another system. He also proved, from his own investigations, that the functions of alimentation were not at fault as causative of phthisis, by showing that the quantity of food taken in the early stage is equal to that in health; and by a reference to the fæces, solids in the urine, biliary and cuticular excretions, he showed that there was no larger excretory waste than occurs in health. The lessened action of the air-cells he proved from the lessened vital capacity, feeble inspiratory power, and lessened mobility in the earliest stage of the disease; the consequent lessened vesicular murmur, harshness of respiration, and flattening

of the chest, with slight dulness, indicative of atrophy of the lung. He also proved that the signs of lessened vesicular action are found in all those cases which, by common consent, are said to be prone to phthisis, and mentioned instances in his own practice at the hospital in which the vital capacity was reduced to two-thirds or one-half the normal quantity, without there being any evidence of the deposit of solid material in the lung. This stage of lessened vesicular inspiratory action, without any evidence of tubercular deposition, he designated as the first stage of the disease, and is one in which every hope of success may be entertained from suitable treatment. The second stage was that of tubercular deposition, and the third that of destruction of tissue, whether to the extent of softening only, or to the further degree of the formation of a cavity. He then proceeded to show the connection between the act of inspiration and the circulation through the lungs, and the importance of maintaining a balance between the systemic and pulmonic circulations, and explained the especial liability of the apex of the lung tubercles, by a consideration of the mode of action of the lung, whereby the cells of the apex must at all times be less perfectly distended than those at the base, and consequently have less circulation and vital influences. He discarded the notion of deposition of tubercle in the lung from the blood; and, having referred to Dr. W. Addison's theory of the formation of the tubercle in the lung from degenerated epithelium, showed how readily the air-cell is rendered fit to be a receptacle of such morbid products, when its action or vital influences are lessened or lost. The extreme liability of the lungs to the deposition was not from any question of the blood, but from a consideration of the peculiar action of extension and retraction of the air-cells (as he had demonstrated), and from the immense number of such fitted receptacles as the air-cells of the lungs offered. He believed that phthisis and scrofula are distinct diseases, and that while they may be sometimes causative of each other, their co-ordinate occurrence was chiefly accidental. He also explained the occurrence of hæmoptysis before the deposition of tubercle, upon the principles now laid down, and pointed out the impropriety of any attempts to arrest it directly, and also of interfering with that degree of increased frequency of respiration and pulsation which nature sets up as a prophylactic measure when the amount of circulation in the lungs is so greatly lessened, as it is in all stages of phthisis. The discussion of the proper treatment, based upon these views, was reserved for a future occasion, but he strongly urged his professional brethren to recommend to the community the impor-

tance of frequent examination of the chest of the younger members of families, with a view to the detection of the disease in its pretubercular stage.—*Med. Times and Gazette.*

DR. DE JONGH.—His Majesty the King of the Belgians has been graciously pleased to confer the dignity of a Knight of the Order of Leopold upon this gentleman, whose name is so favorably associated with his useful researches into the nature and properties of cod-liver oil. It may be recollected that the same sovereign, and also his Majesty the King of the Netherlands, some time since, awarded to Dr. De Jongh medals of merit, in approval of the services rendered by his scientific and practical investigations.—*Med. Times and Gazette.*

STATISTICS OF LITHOTRITY.—Dr. Swalin, of Stockholm, has published a pamphlet giving the results of 61 cases of calculus, observed by him between 1840 and 1855. Of these, 8 were not operated on, 4 were submitted to lithotomy, and 49 to lithotritry. The ages of the latter were, 1 between 10 and 20; 4 between 40 and 50; 14 between 50 and 60; 26 between 60 and 70; and 4 between 70 and 80. Seven deaths occurred, giving a mortality of exactly 1 in 7.

HOSPITAL VENTILATION.—Many gases injurious to health are diffused with extreme rapidity; place and expose camphor in a room, then open doors and windows, the diffusion will not be stopped, nor the scent be materially diminished; if even the air could be pumped out with a strong current, the taint would remain as long as any of the camphor existed. Decaying and fermenting animal and vegetable substances act much in the same way as camphor; gases are liberated, and diffusion takes place. The change of air in rooms and hospital wards ought not to be made at high velocities; some of the best regulated hospitals calculate upon a change equal to one foot vertical per minute; that is, in a room 15 feet high, the whole air should not be changed at a greater rate than once in fifteen minutes. Gases are diffused much more rapidly than this; for a limited space one gas will pass into another gas (hydrogen into common air, for instance) as into a vacuum. No allowable artificial current man can create will prevent such diffusion, if the gases are brought into proximity; no ordinary artificial trapping will stop it. Many gases pass through fluids, and so-called solids, very readily. Hydrogen gas will pass easily through

the pores of stucco, so that plastered walls and ceilings are no barrier to the diffusion of cesspool emanations; hence the intolerable and incurable nuisance experienced where such receptacles are used. Latrines and cesspools generate hydrogen and its compounds; they cannot, therefore, be placed in contact with hospital wards or rooms without creating and maintaining a nuisance, and doing serious injury to the patients or inhabitants. —*The Builder.*

HEALTH OF BUTCHERS.—Dr. Thomson, in his last monthly report on the health of Marylebone, says—"The number of butchers in England and Wales in 1851, was 49,403. The deaths out of this extensive class amounted, between the ages of 35 and 45, to 17 per thousand, while only 8 per thousand of farmers died, and 10 per thousand of shoemakers; 21 per thousand of publicans, however, died. Between 45 and 55, the mortality was, among butchers, 23; farmers, 12; shoemakers, 15; publicans, 28, in the thousand. Between the ages of 55 and 65, the deaths were, of butchers, 42, and of publicans, 39 per thousand; of farmers, 25, and of shoemakers, 29 per thousand. A variety of circumstances, no doubt, contributes to the unhealthy condition of this class. They are exposed to cold and wet in the night, often to incessant labor, toiling very frequently in close, ill-ventilated holes under ground, as some slaughterhouses may be termed with justice. I am told that the younger butchers generally eat a very large quantity of animal food, and that from one to two pounds, and even upwards, is no uncommon daily allowance; that those who thus eat freely are not so much addicted to stimulating drinks; and some master butchers are of opinion that the two practices are incompatible for any prolonged period of time."—*Med. Times and Gazette.*

CREOSOTE IN DYSENTERY.—In a very wide spread epidemic, Dr. Andree found the aqua creosoti of the Swedish Pharmacopœia (3i. ad 3xij. aq. dest.) very useful. A teaspoonful is given to adults every two hours, and a drop for every year to children. It is useful only at an early stage, opium being the remedy at a later. Dr. Hellman has also found it useful but some practitioners state that those patients who take the aqua as a prophylactic of their own accord are oftenest seized with dysentery.—*Schmidt's Jahrb.* XCI, p. 29.

VERATRIA AND MORPHIA IN INCONTINENCE OF URINE.—*By Thos. Kennard, M. D., Assistant Physician to the Blackwell's Island Hospitals, New York* Case 1. Moses Kitten, æt. 28, white, engineer, native of New York, was admitted into the Penitentiary Hospital, Blackwell's Island, May 12, 1856, suffering from delirium tremens, with apoplexy, followed by complete paralysis, which kept him in an insensible state for three weeks, during which time he had to be fed with a spoon. On recovering from this, he had no control over the sphincter muscles, discharging both fæces and urine involuntarily, for which he was treated during June and July without avail. On the 8th of August he was placed under my charge, when I ordered him to rub the perineum three times daily with the following ointment: R.—Morphiæ sulphatis, veratria, aa gr. x; axungiæ, ʒj.—Ft. ung. This treatment was continued three days, when no further inconvenience was experienced, and the control over the sphincters was as perfect as ever before.

Case 2. John Kipp, æt. 80, a native of New York, was admitted to the hospital at the Almshouse, Blackwell's Island, on the 20th of September, 1856, for contusion from a fall. On examining him, and finding his clothes wet, I learned that he had had no control over his sphincter vesicæ for eight years, and was wholly unable to prevent involuntary discharges. Being unable to assign a positive reason for his state, I ordered him to rub the morphia and veratria ointment on the perineum three times daily, and in one week from commencing its use no further trouble was experienced.

Case 3. John Flynn, æt. 56, native of Ireland, laborer, was admitted to the Almshouse Hospital, Sept. 15, suffering from paraplegia of four years' standing, two years of which time he has had no control over his bladder, but passed his urine involuntarily. I ordered strychnia gr. 1-15th twice daily for the paralysis, and to rub the perineum three times daily with the morphia and veratria ointment. Two weeks from this time he was cured of the incontinence of urine, and went on rapidly improving till the end of a month, when he was discharged, nearly well.—*Amer. Jour. of the Med. Sciences.*

RESEARCHES ON THE CAUSE OF THE FLUIDITY OF THE BLOOD.—Dr. B. W. Richardson, in a paper read before the chemical section of the British Association for the Advancement of Science, commenced by giving a historical sketch of the various hypotheses which had been formed to account for the fluidity of the blood and the phenomena of coagulation.

He then related his own investigations, which had led him to the discovery that ammonia is a constituent of the blood, and that on its presence the solubility of fibrin, and therefore the fluidity of the blood, is dependent. The numerous experiments performed by the author were described : they may be thus briefly classified : 1. By causing the vapor arising from coagulating blood to pass through another quantity of blood, drawn as nearly as possible at the same time and from the same animal, the coagulation of the latter is suspended so long as the current of vapor is kept up. 2. By driving the vapor of coagulating blood into pure hydrochloric acid, and afterwards treating with chloride of platinum, the characteristic yellow crystals of ammonio-chloride of platinum are procurable. 3. On collecting a large quantity of freshly-drawn blood in a wide-mouthed jar, and placing over a cover, to the interior of which is fixed a slip of glass moistened with hydrochloric acid, the glass becomes covered with microscopic crystals of chloride of ammonium. 4. If fibrin removed from blood be carefully dissolved in a weak solution of ammonia, and again added to the serum and red particles, coagulation may be induced. The result arrived at was, that the phenomenon of coagulation depends essentially on the evolution of ammonia from the blood ; and this gives an explanation of the modifications observed in the process of coagulation under various physical conditions. In concluding his paper, Dr. Richardson pointed out that ammonia, in combination with carbonic acid gas, is a constant constituent of the air expired in the breath. The presence of ammonia in the animal economy, and its evolution in respiration, was of interest in that it connected more closely the link that exists between the animal and vegetable worlds. But the subject was of the greatest importance in relation to the causes, the nature, and the treatment of various diseases.—*Proceedings of British Assoc. for Advancement of Sciences, 1856.*

VOMITING FOR FORTY YEARS.—*By Jacob Bigelow, M. D., of Boston.* A lady, now 79 years of age, has been at times under my care for the last twenty years. She reports that at the age of thirty or forty, she had a severe fever, on recovering from which she found herself unable to retain either food or liquid upon the stomach in any considerable quantity. She is confident that during the whole period of forty years, she has never retained a meal, but has vomited regularly at least three times a day. If she eats or drinks in irregular or intermediate hours, the material received is always thrown off, even if it be only a cup of tea or of water. The vom-

iting is easy, and without pain or great effort. The matter thrown up consists of the ingesta, having usually an acid taste. There is no bile, except during the presence of some temporary indisposition. She takes her food with relish, and in most instances throws it off quickly, being often obliged to leave the table abruptly for that purpose. If the vomiting is not complete, she occasionally drinks warm water to promote the evacuation and relieve uneasiness, especially at going to bed. She is confident that she ejects as much as she receives, but her daughter, who resides with her, thinks it may be three quarters as much. The last supposition is undoubtedly nearest the truth, and would leave for her support one quarter of each meal taken.

She is now in her eightieth year, having led an active life, in the enjoyment of a competent degree of health, except an occasional attack of acute disease. She has four times had severe erysipelas, attended in two instances with considerable sloughing. She has had dysentery more than once. Last spring she broke the os humeri and had an abscess on the shoulder. She is now in the enjoyment of fair health, the functions duly performed, and has made a journey of a hundred miles within a few months. She is confident that for the period which has been stated, including one half of her life, she has never retained a single meal.

I have never found any tumor, effusion or tenderness on pressure in or about the epigastric region, except the occasional effects of acute disease as above mentioned. Her habit has been generally spare, but otherwise her appearance, spirits and bearing, are those of a person who has been benefited, rather than injured, by the smallness of the nutriment left for her support.—*Boston Med. and Surg. Jour.*

PHYSICAL ASPECT OF MAN.—An examination of 20,000 infants at the Maternité, in Paris, gives for the weight of the new born $6\frac{1}{4}$ lbs.; the same mean value obtains for the city of Brussels. For about a week after birth this weight undergoes an actual diminution, owing to the tissue destruction which issues through the establishment of respiration, and which for a time exceeds the gain from nutrition. For the same age, the male infant is heavier than the female; but this difference gradually diminishes, and at twelve years their weight is sensibly the same. Three years later, at the period of puberty, the weight is one-half of what it is finally to be, when full development is revealed.

The maximum weight eventually attained, is a little more than twenty

times that at birth, this holding good for both sexes; but since the new born female weighs less than the standard, and the new born male more, the weight of the adult male is 137 lbs., and of the adult female 121 lbs. The mean weight of a man, irrespective of his period of life, is about 107 lbs., and of a woman nearly 94 lbs. The mean weight of a human being, without reference to either age or sex, is about 90 lbs.

M. Quetelet, to whom we are indebted for the above statistics, as the result of his researches, states that communities seem to be under the influence of unchangeable laws, as much as the individual. "In communities, man commits the same number of murders each year, and does it with the same weapons. We might enumerate, beforehand, how many individuals will imbue their hands in the blood of their kind, how many will forge, how many poison, very nearly as we enumerate, beforehand, how many births and deaths will take place."—*Nashville Journal of Medicine and Surgery.*

EXSECTION OF THE ELBOW-JOINT.—*By George C. Blackman, M.D.*—During the early part of May last, I was consulted by Catherine Greary, of Cumminsville, who was suffering from caries of the articular surfaces of the bones entering into the formation of the elbow-joint. She was 24 years of age, and of a healthy appearance. Although she had experienced pain for nearly three years, it was not until about Christmas last that matter was discharged. Through the fistulous opening communicating with the joint, the denuded, carious condition of the bones could readily be detected. On the 27th of May, with the assistance of Drs. Mount, Fries, Dandridge, and in the presence of many other physicians, I exposed the joint by a \neg shaped incision, and during the dissection of the flaps the ulnar nerve was drawn on one side by Dr. Fries, so as not to be even exposed during the operation. The articular ends of the bones were then removed with the greatest ease by means of one of Luer's small saws. The hemorrhage was slight, but one vessel requiring a ligature. Water dressings were applied to the parts, and the limb placed in the extended position upon a pillow. After a few days Dr. Mount, who had charge of the case, applied an angular splint, and from time to time the arm was flexed until it was brought to a right angle. Nearly the whole wound healed by the first intention. The patient, from misapprehending instructions given her, commenced the use of the limb at too early a period, by which the uniting band was temporarily weakened, but she is now—nearly six

months after the operation—steadily gaining strength and control of the movements of the limb. No fistulous openings exist, and there can be no doubt that she will in a few months have a very excellent use of her arm. This prediction is based upon the results of the operations performed by Professors Syme, Fergusson, Erichsen, and others, in Great Britain, and of Drs. Harris, Buck, Mutter, and Pancoast in our own country. In many of these cases the arm acquired almost its natural powers.—*Western Lancet*.

THE “READY METHOD” IN ASPHXIA, SUCCESSFUL RECOVERY AFTER ORDINARY MEANS, TRIED FOR AN HOUR, HAD FAILED.—*By A. Legat, M. D., South Shields*.—Having had occasion to visit a lady, three or four miles distant, on the 3rd instant, as I drove to the door I was requested to go immediately to the coach-house to see “an extreme case.” On entering the harness-room, I saw stretched *on his back* before a warm fire, partially enveloped in blankets, a muscular-looking young man, surrounded by four or five others, one of whom was supporting his head. The lips and face were blue, the surface quite cold, and the body so rigid that the right hand, which rested over the pubes, and the left arm, bent at right angles over the chest, could not without difficulty be changed from their position. There was no pulse, and no respiration could be detected. A slight quivering was observed throughout the body for an instant, and in this movement seemed the only hope that life might be restored. Exactly an hour had elapsed since he was taken out of the sea, and at that time he spoke a few words. Blankets were taken down to the beach. He was well rubbed. An attempt was made to administer brandy, which it would appear he could not swallow, and he was then carried about four hundred yards to the room where I found him. He had been lying here about half an hour, *during which time he had not spoken*, and for the last ten minutes of it he had been in the condition above described. Those around him told me “they feared it was too late to be of use to him.” I felt there was no time to be lost. The window of the room was ordered to be thrown open, and placing my watch on the floor before me, for the purpose of correct observation, I knelt down, and with my right hand on his left shoulder, and my left on the side of his chest, commenced the movements described by Dr. Marshall Hall. He was rolled gently over on his face (the mouth and nostrils being carefully kept free), and then back again on his side “and a little beyond,” every four or five seconds. About seven

minutes had elapsed when I heard more than one of the bystanders say, "it was of no use ; but the movements were steadily persevered in, accompanied with occasional slappings with the open hand over the back of the chest, and rubbing of the limbs upwards by two assistants. *In twelve minutes* I first detected indications of returning respiration, and *in six minutes more*, accurately noted, the breathing was natural. I then made him swallow a little brandy, and saw him again in half an hour, before I left, perfectly safe.

Remarks.—Three months have just elapsed since the short but excellent rules, from the able pen of Dr. Marshall Hall, for the restoration of the drowned appeared in the *Lancet*, and now the second instance of remarkable recovery by their means is recorded. I could conceive no case which could put this new method more severely to the test than the present one. Every attention had been paid to the man from the moment he was removed from the water—warm blankets, continued rubbing of the body, the application of mustard, the administration of brandy, removal to a warm fire, etc.; and yet, notwithstanding all this, instead of getting better, he grew worse, and must inevitably in a few minutes more have been beyond all reach of art. And why? Because his kind and attentive neighbors, although doing their best for him, had been pursuing a plan opposed to his recovery. Three causes evidently operated against the poor man—1st, the attempt to give brandy, which he could not swallow ; 2ndly, the carrying him nearly four hundred yards ; and 3rdly, the placing him *upon his back*, all of which, in his enfeebled condition, must have tended to reproduce and prolong the asphyxia. An hour elapsed, postural respiration was tried under this disadvantage, and in eighteen minutes the respiration was free !

It would be well if the Royal Humane Society would withdraw their old "rules," so liberally scattered about, and replace them with the concise and simple instructions of Dr. Marshall Hall. Ordinary intelligence and perseverance, with a knowledge of such rules, I feel certain, would be the means of saving very many lives.

I beg also to suggest to my professional brethren this plan for the purpose of resuscitating patients thrown into a critical condition from the administration of chloroform. The present method of seizing the tongue with the forceps to pull it forward will be unnecessary, and command over the respiratory organs will be found to be surprisingly great.—*London Lancet.*

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